



Clean Harbors Services, Inc.  
11800 S. Stony Island Avenue  
Chicago, IL 60617

773.646.6202  
708.746.4040  
www.cleanharbors.com

US EPA RECORDS CENTER REGION 5



Via Federal Express

February 8, 2013

Mr. Stephen F. Nightingale, P.E.  
Illinois Environmental Protection Agency  
Bureau of Land – Permit Section  
1021 North Grand Avenue East  
Springfield, IL 62702

Subject: RCRA Closure Documentation Report - Container Storage Units  
RCRA Log B-16R  
ILD000608471

Dear Mr. Nightingale:

Clean Harbors Services, Inc. (CHSI) is submitting a RCRA Closure Documentation Report for the following tank system and container storage units (S01):

**Flammable Storage Tank Farm – Unit 16**  
**Container Storage Building – Unit 25**  
**Ignitable Container Management Building – Unit 26**  
**Container Handling Dock – Unit 61**  
**Truck Staging Area – Unit 59**  
**Truck Unloading Platform – Unit 15**  
**Truck Pad – Unit 62**  
**Rail Car Unloading Area – Unit 13**  
**Hazardous Waste Fuel Blending Operation – Unit 43**

This will be considered final closure of all RCRA units at the facility. These units are all on the North portion of the facility previously owned by Chemical Waste Management. All of the units were constructed by 1995.

The CHSI facility is located at 11800 S. Stony Island Avenue, Chicago, IL 60617 in Hyde Park Township of Cook County. A site location drawing is included as Attachment 1. A facility drawing showing the location of all relevant structures, including hazardous waste units undergoing closure, is included as Attachment 2. Detailed drawings of each unit are included in Attachment 3.



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CHSI accepted and stored containers of hazardous wastes, including lab packs that are generated offsite. The wastes are stored prior to onsite treatment, or for subsequent transfer to an offsite waste treatment or disposal facility. The wastes stored in containers were typically received in containers such as rollofs, bulk tankers, box trucks, and non-bulk containers (e.g., 55-gallon drums, lab packs). Wastes in containers were treated on site or transferred to offsite treatment/disposal facilities in their original container or, whenever practicable, in consolidated (i.e., repackaged or bulked) form. The consolidation of lab packs could occur under the operating fume hoods in Unit 25 and Unit 26. The pouring-off of containers that were in a lab pack could occur under operating fume hoods in Unit 25 and Unit 26. The removal of residues from non-RCRA empty tank trucks could occur in the following transporter storage/staging areas: Unit 59, Unit 15 and Unit 62.

The units being closed include:

**Flammable Storage Tank Farm – Unit 16**

TK-101	12,800 gallons
TK-102	12,800 gallons
TK-103	12,800 gallons
TK-104	12,800 gallons
TK-105	12,800 gallons
TK-106	12,800 gallons
TK-107	12,800 gallons
TK-109	12,800 gallons
TK-110	12,800 gallons
TK-112	19,600 gallons

Layout, design details and pertinent operating data, including unit dimensions, storage capacity, and secondary containment capacity calculations for the unit are shown in CHCI DWG Nos. 4207, Sheets 3 of 5, 4 of 5 and 5 of 5, and CHCI DWG Nos. 4215.



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**Container Storage Building (Unit 25)**

<b>Alkaline/Poisons</b>	72	Drums
<b>Acids</b>	192	
<b>Flammable</b>	184	
<b>Truck Pad</b>	<u>88</u>	
	656	Drums
	(55-gallon equivalents)	

Layout, design details and pertinent operating data, including unit dimensions, storage capacity, and secondary containment capacity calculations for the unit are shown in CHCI DWG No. 4282 and for the Truck Loading Dock in CHCI Drawing No. 4283.

**Ignitable Container Management Building (Unit 26)**

192 Drums  
(55-Gallon equivalents)

Layout, design details and pertinent operating data, including unit dimensions, storage capacity, and secondary containment capacity calculations for the unit are shown in CHCI DWG No. 4210, Sheet 2 of 3.

**Container Handling Dock – Unit 61**

160 Drums  
(55-Gallon equivalents)

Layout, design details and pertinent operating data, including unit dimensions, storage capacity, and secondary containment capacity calculations for the unit are shown in CHCI DWG No. 4245, Sheet 2 of 3.

**Truck Staging Area – Unit 59**

Three (3) trucks (7200 gallons each)

Layout, design details and pertinent operating data, including unit dimensions, storage capacity, and secondary containment capacity calculations for the unit are shown in CHCI DWG No. 4247.

**Truck Unloading Platform – Unit 15**

Two (2) trucks (7200 gallons each)



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Layout, design details and pertinent operating data, including unit dimensions, storage capacity, and secondary containment capacity calculations for the unit are shown in CHCI DWG No. 4248.

**Truck Pad – Unit 62**

Four (4) trucks (7200 gallons each)

Layout, design details and pertinent operating data, including unit dimensions, storage capacity, and secondary containment capacity calculations for the unit are shown in CHCI DWG No. 4246.

**Rail Car Unloading Area – Unit 13**

Two (2) rail cars (60,000 gallons)

Layout, design details and pertinent operating data, including unit dimensions, storage capacity, and secondary containment capacity calculations for the unit are shown in CHCI DWG Nos. 4217, Sheets 1 of 3, 2 of 3 and 3 of 3, and CHCI DWG No. 4251.

**Hazardous Waste Fuel Blending Operation – Unit 43**

Dispersion Tank – 1225 gallons

Overflow Tank – 275 gallons

Layout, design details and pertinent operating data, including unit dimensions, storage capacity, and secondary containment capacity calculations for the unit are shown in CHCI DWG Nos. 4207, Sheets 3 of 5 and 4 of 5, 4213, Sheet 2 of 3, and CHCI DWG Nos. 4235, 4236, 4237, 4238, 4239, 4240 and 4241.

The Closure Plan was approved in 1993. Changes were made to add additional units in 1995, update closure costs in 2004 and approval of the Sampling and Analysis Plan in 2012. The facility had been downsized in 2007 and the amount of wastes received decreased substantially. Only 6 employees remained and the majority of waste passed through the facility under the ten day rule. All wastes received from offsite carry all hazardous waste codes when shipped offsite for final disposal. All wastes received from offsite were shipped offsite by July 3, 2012.





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CHSI followed the approved Closure Plan from the RCRA Part B Permit Application and the RCRA Part B Permit with one exception. Closure involves waste and residue removal, inspecting, photographing, cleaning, and rinsing. This is followed by Professional Engineer certification that the cracks, gaps or other defects are not present to allow waste to migrate through to the underlying soil. Otherwise, sampling in accordance with an approved sampling plan would be conducted to verify underlying soil is uncontaminated. The CHSI facility has undergone a RCRA Facility Investigation that has found soil contamination at the facility. IEPA has approved a plan of corrective action to leave the contaminated soil in place through use of an engineered barrier, diversion of groundwater and a deed restriction. All of the above units are part of the engineered barrier in the Corrective Action Plan. For this reason, CHSI proposed that any cracks, gaps or other defects found be repaired and left as part of the engineered barrier. The engineered barrier is required to be maintained in the future.

Following waste and residue removal, steam cleaning and triple rinse, rinsate from all concrete containment surfaces was sampled and analyzed for all the hazardous constituents listed in 35 Ill. Adm. Code 721, Appendix H associated with the hazardous wastes which were managed in the Hazardous Waste Management Unit. If the analysis detects the presence of any constituent of listed hazardous waste(s) managed in the unit above the PQL, then waste material was managed as a listed hazardous waste. In addition, an analysis of this waste material will be performed to determine if it

exhibits any of the characteristics of hazardous waste as set forth in 35 Ill. Adm. Code 721, Subpart C. Waste material exhibiting any characteristic of a hazardous waste was also managed as a hazardous waste. Decontamination of the unit was deemed complete when the rinsate no longer exhibited any characteristic of hazardous waste. No rinsate was treated in the on-site CHSI wastewater treatment plant.

Hazardous constituents listed in 35 Ill. Adm. Code 721, Appendix H associated with the hazardous wastes which were managed in each Hazardous Waste Management Unit are considered to be those constituents listed with the following USEPA Hazardous Waste Codes in Appendix H:

1. Acids – D002, D004-D011, F006, F019, K002-K008, K031, K048-K052, K061, K062, K069, K084, K086, K100-K102, K106, P011, P012, U144-U146, and U246.



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2. Alkalines - D002, D004-D011, F006, F019, K002-K008, K031, K048-K052, K061, K062, K069, K084, K086, K100-K102, K106, P011, P012, U144-U146, and U246.
3. Flammables/organics -D001, D012-D043, F001-F005, F020-F024, F026-F028, K001, K009-K030, K032-K043, K060, K073, K083, K085, K086, K051, K052, K093-K099, K103-K105, P004, P005, P022, P037, P048, P050, P051, P059, and U-codes.
4. Oxidizers - D001
5. Poisons/Pesticides - D012-D017, F020-F023, F026, F027, and P-codes.
6. Reactives -D003, F006, F007-F022, F012, F019, P013, P021, P029, P030, P063, P074, P098, P099, P104, P106, P006, P009, P042, P065, P112, P081, P122, U006, U223, U020, U023, U160, U033, U096, U133, U189, U205, U223, and U234.

Note 35 Ill. Adm. Code 721, Subpart C analysis was run on all rinsate samples.

A final rinsate sample was taken from each bay of a container storage area. The number of samples analyzed for each unit (bay) and above analyses that were run are:

**Container Storage Building (Unit 25)** - 1 sample each: **Alkaline/Poison** (Alkaline, Poison/Pesticides), **Acids** (Acids), **Flammable** (Flammables/organics, PCBs), **Truck Pad** (Alkaline, Poison/Pesticides, Acids, Flammables/organics)

**Ignitable Container Management Building (Unit 26)** - 1 sample (Flammables/organics)

**Container Handling Dock (Unit 61)** - 1 sample (Flammables/organics)

**Truck Staging Area (Unit 59)** - 1 sample (Flammables/organics)

**Truck Unloading Platform (Unit 15)** - 1 sample (Flammables/organics)

**Truck Pad (Unit 62)** - 1 sample (Flammables/organics)

**Rail Car Unloading Area (Unit 13)** - 1 sample (Flammables/organics)



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**Flammable Storage Tank Farm (Unit 16)** - 10 tank samples, 10 containment samples  
(Flammables/organics)

**Hazardous Waste Fuel Blending Operation – Unit 43** – 2 tank samples, 1 containment sample  
(Flammables/organics)

If the analysis detected the presence of any constituent of hazardous waste(s) managed in the unit above the PQL, then the waste material was managed as a hazardous waste with the corresponding hazardous waste code. All equipment (piping, pumps, etc.) rinsate will be managed using the same criteria above according to the unit associated with the equipment. Due to the cost associated with the analyses to determine the corresponding hazardous waste codes of residues and rinsates, CHSI decided to carry all hazardous waste associated with each unit. No sampling will be done of containment structures that are part of the final engineered barrier in the Corrective Action Plan. Any cracks, gaps or other defects found be repaired and left as part of the engineered barrier.

Each containment unit consisted of concrete containment with an impervious coating. Structures decontaminated included fume hoods in Units 25, 26 and cutoff room in Unit 26. There are no other structures in these units. These units are outside except for Units 25, 26 and 43. Nearby walls outside the containment were also deconned for Units 25, 26, 43 and 61. All concrete-lined containment areas (e.g., secondary containment basins, truck loading/offloading pads, tank storage areas, etc.) and structures were decontaminated using the following procedures. Following waste removal, all surface areas were scraped and swept to remove hardened residues. These were containerized into drums. The surface was then steam cleaned with high-pressure washer to remove residues. The surface was then cleaned with a high-pressure washer and by a through rinsing with clean water. All wash waster and residues were containerized into tote tanks, sampled, analyzed, and disposed of at an approved off-site facility.

Each tank was decontaminated using the following procedures. Following waste removal, all surface areas were scraped and swept to remove hardened residues. These were containerized into drums. The surface was then steam cleaned with high-pressure washer to remove residues. The surface was then cleaned with a high-pressure washer and by a through rinsing with clean water. All wash waster and residues were containerized into tote tanks, sampled, analyzed, and disposed of at an approved off-site facility.



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The following is a summary for each unit detailing volumes of residues, decontamination washes and rinses generated, disposition of these wastes and analyses. Manifest copies are included as Attachment 4. Decontamination confirmation analyses are included as Attachment 5. Photo documentation is included as Attachment 6.

**Ignitable Container Management Building – Unit 26**

Solid residues – 1 gallon

Washes/rinses – 400 gallons – Manifest #003109195FLE

Clean Harbors Canada, Inc. (Corunna, Ontario) Incineration

Insulation – 25 cubic yards – Manifests # 003109194FLE

Clean Harbors Canada, Inc. (Corunna, Ontario) Stabilization/Landfill

Hazardous waste codes from Flammables/organics listed on page 5.

The decontamination took place on November 30, 2012.

Confirmation Analysis: 12110796

**Container Storage Building – Unit 25**

**Alkaline/Poisons-** Solid residues – 1 gallons, Washes/rinses – 200 gallons  
– Manifest #003109195FLE

Clean Harbors Canada, Inc. (Corunna, Ontario) Incineration

Hazardous waste codes from Alkaline, Poison/Pesticides listed on page 5.

The decontamination took place on November 29, 2012.

Confirmation Analysis: 12110796

**Acids** - Solid residues – 1 gallon, Washes/rinses – 200 gallons  
– Manifest #003109195FLE

Clean Harbors Canada, Inc. (Corunna, Ontario) Incineration

Hazardous waste codes from Acids listed on page 5.

The decontamination took place on November 29, 2012.

Confirmation Analysis: 12110851

**Flammables** - Solid residues – 1 gallon, Washes/rinses – 300 gallons  
– Manifest #003109195FLE

Clean Harbors Canada, Inc. (Corunna, Ontario) Incineration

Insulation – 25 cubic yards – Manifests # 005567825FLE

Clean Harbors Canada, Inc. (Corunna, Ontario) Stabilization/Landfill

Hazardous waste codes from Flammables/organics, PCBs listed on page 5.

The decontamination took place on December 10, 2012.





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Confirmation Analysis: 12120275

**Truck Pad** - Solid residues – 1 gallon, Washes/rinses – 150 gallons

– Manifest #003109195FLE

Clean Harbors Canada, Inc. (Corunna, Ontario) Incineration

Hazardous waste codes from Alkaline, Poison/Pesticides, Acids, Flammables/organics listed on page 5.

The decontamination took place on November 2, 2012.

Confirmation Analysis: 12110446

**Flammable Storage Tank Farm – Unit 16**

Solid residues – 20 gallons

Washes/rinses – 8000 gallons – Manifests #001184744FLE, 003109182FLE, 003109185FLE

Clean Harbors Canada, Inc. (Corunna, Ontario) Incineration

Piping – 180 cubic yards – Manifests #003109178FLE, 003109184FLE, 003109192FLE, 003109196FLE, 005567829FLE, 005550069FLE, 001184772FLE, 001184772FLE

Clean Harbors Canada, Inc. (Corunna, Ontario) Stabilization/Landfill

Carbon – 4-2000# beds – Manifest #001184782

Siemens Industry Inc. (Darlington, PA) Reclamation

Hazardous waste codes from Flammables/organics listed on page 5.

The decontamination took place on August 14, 15, 16, 17, 28, 29, and 30, September 10, 17, 18, 21, 24, 25, 27 and 28, October 8, 9, 10, 15 and 30, November 6, 9, 28, 29 and 30, December 6 and 13, 2012.

Confirmation Analyses: 12080857, 12110446, 12110851, 12120184

**Hazardous Waste Fuel Blending Operation – Unit 43**

Solid residues – 2 gallons

Washes/rinses – 900 gallons – Manifest #001184744FLE

Clean Harbors Canada, Inc. (Corunna, Ontario) Incineration

Piping – 20 cubic yards – Manifest # 003109192FLE

Insulation – 50 cubic yards – Manifests # 003109174FLE, 003109175FLE

Clean Harbors Canada, Inc. (Corunna, Ontario) Stabilization/Landfill

Hazardous waste codes from Flammables/organics listed on page 5.

The decontamination took place on August 8, 9 and 10, October 8 and 15, and November 13, 2012.



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Confirmation Analyses: 12080292, 12080858, 12110446

**Container Handling Dock – Unit 61**

Solid residues – 2 gallons

Washes/rinses – 300 gallons – Manifest #003109195FLE

Clean Harbors Canada, Inc. (Corunna, Ontario) Incineration

Hazardous waste codes from Flammables/organics listed on page 5.

The decontamination took place on November 1, 2012.

Confirmation Analysis: 12110446

**Truck Pad – Unit 62**

Solid residues – 2 gallons

Washes/rinses – 300 gallons – Manifest #003109195FLE

Clean Harbors Canada, Inc. (Corunna, Ontario) Incineration

Hazardous waste codes from Flammables/organics listed on page 5.

The decontamination took place on November 1, 2012.

Confirmation Analysis: 12110446

**Truck Staging Area – Unit 59**

Solid residues – 2 gallons

Washes/rinses – 300 gallons – Manifest #003109195FLE

Clean Harbors Canada, Inc. (Corunna, Ontario) Incineration

Hazardous waste codes from Flammables/organics listed on page 5.

The decontamination took place on November 5, 2012.

Confirmation Analysis: 12110446

**Truck Unloading Platform – Unit 15**

Solid residues – 2 gallons

Washes/rinses – 400 gallons – Manifest #003109195FLE

Clean Harbors Canada, Inc. (Corunna, Ontario) Incineration

Hazardous waste codes from Flammables/organics listed on page 5.

The decontamination took place on December 11, 2012.

Confirmation Analysis: 12120357



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**Rail Car Unloading Area – Unit 13**

Solid residues – 5 gallons

Washes/rinses – 400 gallons – Manifest #003109195FLE

Clean Harbors Canada, Inc. (Corunna, Ontario) Incineration

Hazardous waste codes from Flammables/organics listed on page 5.

The decontamination took place on November 9, 2012.

Confirmation Analysis: 12110446

The solid residues were all combined into one drum and were combined into a piping rolloff.

No integrity evaluation, soil sampling/analysis or soil remediation was required for these units. The CHSI facility has undergone a RCRA Facility Investigation that has found soil contamination at the facility. IEPA has approved a plan of corrective action to leave the contaminated soil in place through use of an engineered barrier, diversion of groundwater and a deed restriction. All of the above units are part of the engineered barrier in the Corrective Action Plan. For this reason, CHSI proposed that any cracks, gaps or other defects found be repaired and left as part of the engineered barrier. The engineered barrier is required to be maintained in the future. A copy of the IEPA approval of Corrective Action is included as Attachment 7.

This report contains sufficient information to demonstrate that the above units were closed in accordance with the approved plan. This report details the units involved in closure and that waste was removed from the units prior to approval of the Sampling/Analysis Plan. All surface areas were scraped and swept to remove hardened residues. These were containerized into drums. The surface was then steam cleaned with high-pressure washer to remove residues. The surface was then cleaned with a high-pressure washer by a through rinsing with clean water. All wash water and residues were containerized into tote tanks, sampled, analyzed, and disposed of at an approved off-site facility. All units passed the decontamination closure analyses. Due to the cost associated with the analyses to determine the corresponding hazardous waste codes of residues and rinsates, CHSI decided to carry all hazardous waste associated with each unit. No integrity evaluation, soil sampling/analysis or soil remediation was required for these units. IEPA has approved a plan of corrective action to leave the contaminated soil in place through use of an engineered barrier, diversion of groundwater and a deed restriction. An independent, Illinois licensed, Professional Engineer oversaw and documented completion of all required closure activities. The engineer was present for all critical closure activities, including





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decontamination. This closure did not include soil sampling, soil removal, backfilling or final cover placement. The frequency of inspections by the engineer was sufficient to determine that all closure activities were carried out in accordance with the approved plan. This included observing removal of solid residues, steam cleaning, rinsing and sampling of rinses for these units.

To minimize costs, CHSI utilized employees and equipment for the decontamination work and Clean Harbors' facilities for disposal of washes/rinses. Wastes were also bulked to reduce transportation costs.

Units 13 and 15 required 144 man-hours.  
Units 25 and 26 required 248 man-hours.  
Units 59, 61 and 62 required 212 man-hours.  
Unit 43 required 244 man-hours.  
Units 16 required 688 man-hours.

Crews were typically a supervisor (\$45/hour) and 5 technicians (\$25/hour).

Disposal and transportation for a bulk tanker of lean water at Clean Harbors Corunna facility is approximately \$9800. Disposal and transportation for a bulk rolloff of piping or insulation at Clean Harbors Corunna facility is approximately \$9800. Report writing and certification are expected to cost approximately \$3000.

The lease on the north portion of the facility expired December 31, 2012 and CHSI has left the site. I spoke with Ted Dragovich of your staff and he suggested I contact the IEPA Regional Office concerning closure of the units. Calvin Harris of the Des Plaines IEPA Regional Office inspected the units to be closed on December 21, 2012.

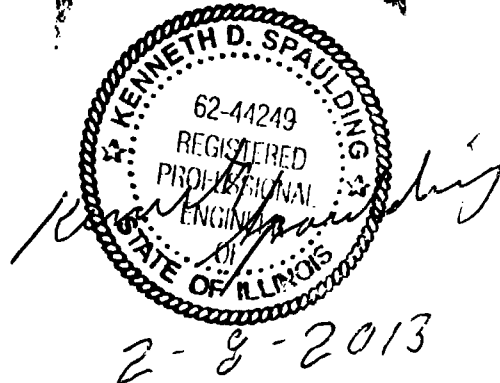


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If you have any questions concerning this report, please contact me at 773-646-6202, x233.

Sincerely,

James R. Laubsted  
Sr. Facility Compliance Manager



Cc: Mr. James Blough  
U.S. Environmental Protection Agency  
Region V - Mail Code DW-8J  
77 West Jackson Boulevard  
Chicago, IL 60604

Mr. Anthony G. Ianello  
3600 E. 95<sup>th</sup> Street  
95<sup>th</sup> & the Lakefront  
Chicago, IL 60617

ATTN: Landfill, Liquid Waste, Transfer Facility Permit  
Chicago – Department of Public Health  
333 South State Street  
Suite 200  
Chicago, IL 60604

This statement is to be completed by both the responsible officer and by the registered professional engineer upon completion of closure. Submit one copy of the certification with original signatures and three additional copies.

Closure Certification Statement

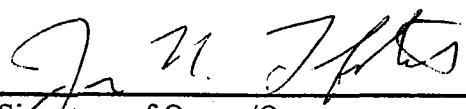
The hazardous waste management units at the facility described in this document have been closed in accordance with the specifications in the Agency approved closure plan. I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

ILD000608471

USEPA ID Number

Clean Harbors Services, Inc.

Facility Name

  
Signature of Owner/Operator

James R. Laubsted, Sr. Facility Compliance Mgr.

Name and Title

  
Signature of Registered P.E.

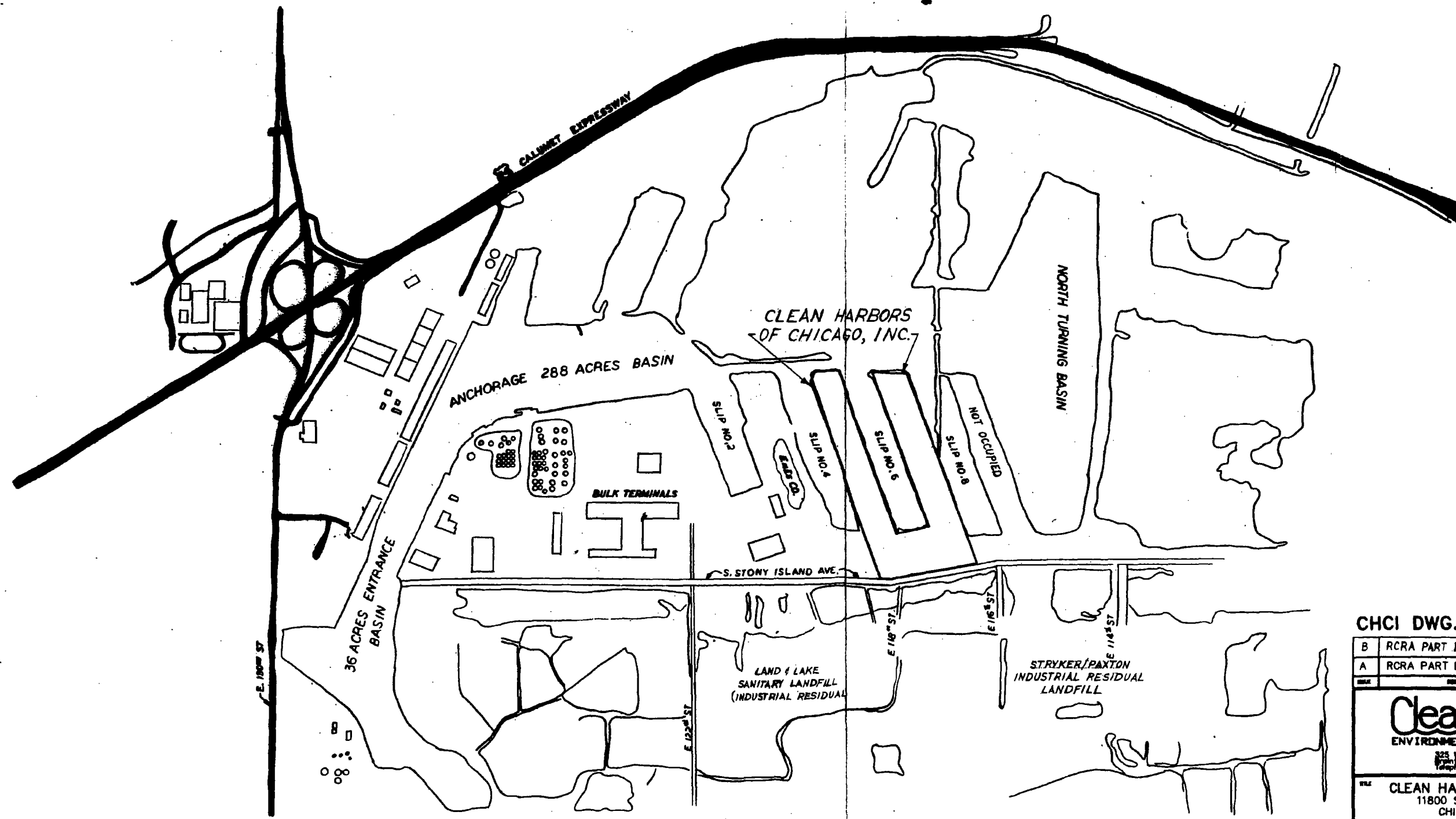
Kenneth D. Spaulding, 62-44249

Name of Registered P.E. and Illinois  
Registration Number

2-8-2013  
Date

SFN:WRW:bjh\051161s.doc





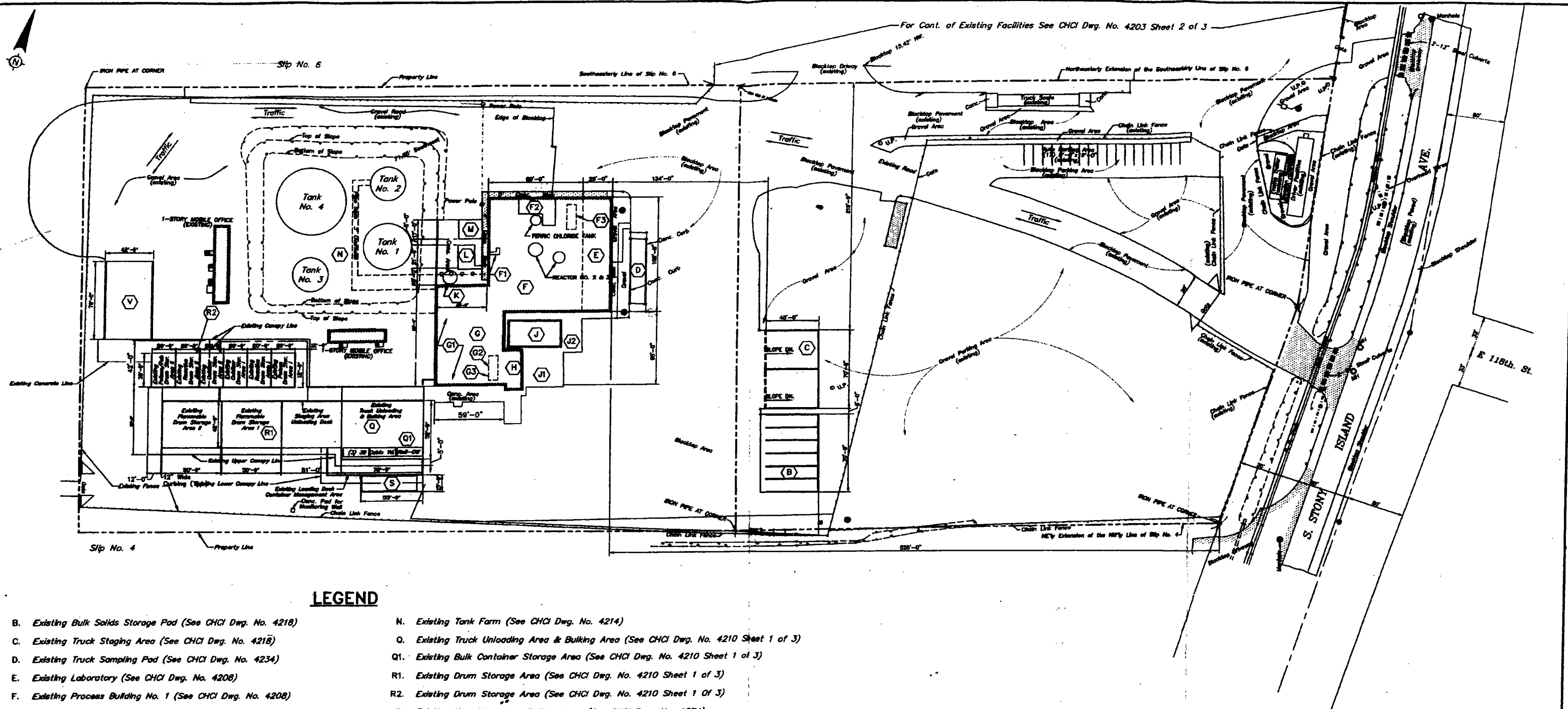
CHCI DWG. NO. 4200

B	RCRA PART B MODIFICATION	RC	GP	GP	GP
A	RCRA PART B SUBMITTAL	RC	GP	GP	GP
DATE	DESCRIPTION	DATE	DATE	DATE	DATE

**Clean Harbors**  
ENVIRONMENTAL ENGINEERING, INC.  
325 Wood Road  
Naperville, Illinois 60563  
Telephone (617) 846-1200/1800

**CLEAN HARBORS OF CHICAGO, INC.**  
11800 S. STONY ISLAND AVENUE  
CHICAGO, ILLINOIS 60617  
**SITE LOCATION &  
SURROUNDING LAND USE**

PROJECT NO. E-2916    DRAWING NO. 2916-C-01  
SCALE NONE



# **LEGEND**

- |   |   |
|---|---|
| B. Existing Bulk Solids Storage Pad (See CHCI Dwg. No. 4218)                  | N. Existing Tank Farm (See CHCI Dwg. No. 4214)  |
| C. Existing Truck Staging Area (See CHCI Dwg. No. 4218)                       | O. Existing Truck Unloading Area & Bulking Area (See CHCI Dwg. No. 4210 Sheet 1 of 3) |
| D. Existing Truck Sampling Pad (See CHCI Dwg. No. 4234)                       | Q1. Existing Bulk Container Storage Area (See CHCI Dwg. No. 4210 Sheet 1 of 3)        |
| E. Existing Laboratory (See CHCI Dwg. No. 4208)                               | R1. Existing Drum Storage Area (See CHCI Dwg. No. 4210 Sheet 1 of 3)                  |
| F. Existing Process Building No. 1 (See CHCI Dwg. No. 4208)                   | R2. Existing Drum Storage Area (See CHCI Dwg. No. 4210 Sheet 1 of 3)                  |
| F1. Existing Lab Pack Pour-Off Station (See CHCI Dwg. No. 4208)               | S. Existing Non-Hazardous Bulking Area (See CHCI Dwg. No. 4274)                       |
| F2. Existing Waste Oil Treatment/Storage System (See CHCI Dwg. No. 4208)      | V. Existing Truck Loading Dock (See CHCI Dwg. No. 4234)                               |
| F3. Existing Offloading Area (See CHCI Dwg. No. 4208)                         |   |
| G. Existing Process Building No. 2 (See CHCI Dwg. No. 4209 Sheet 2 of 2)      |   |
| G1. Existing Drum Storage Area (See CHCI Dwg. No. 4209 Sheet 2 of 2)          |   |
| G2. Existing Filter Press Roll-Off Area (See CHCI Dwg. No. 4209 Sheet 2 of 2) |   |
| G3. Existing Offloading Area (See CHCI Dwg. No. 4209)                         |   |
| H. Existing Filter Press/Roll-Off Building                                    |   |
| J. Existing Receiving Tanks (Sump #1 - #4)                                    |   |
| J1. Existing Bulk Truck Unloading Area  |   |
| J2. Existing Bulk Truck Unloading Area  |   |
| K. LIME SILO  |   |
| L. Compressor Shed  |   |
| M. Carbon Absorption Shed   |   |

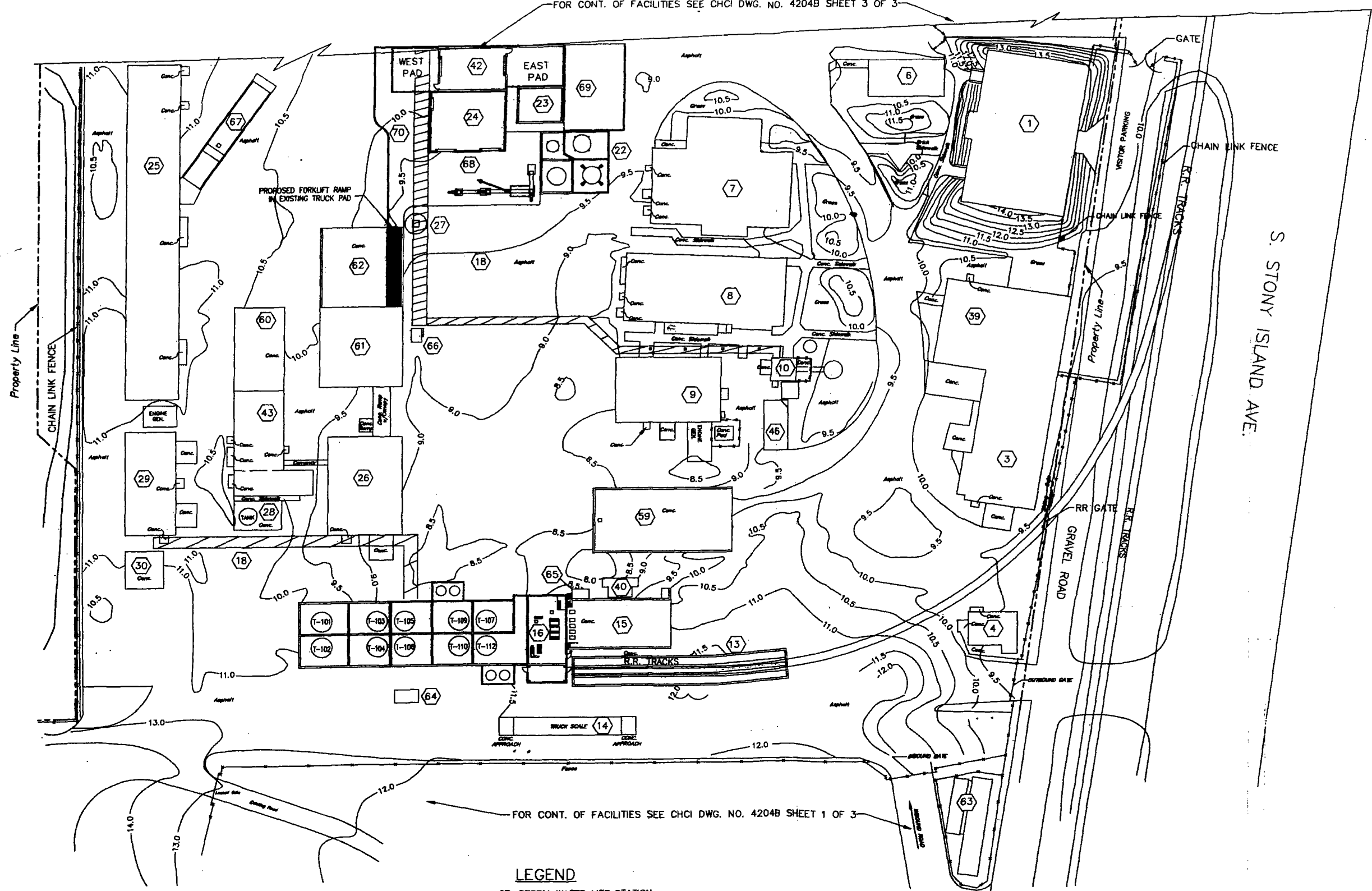
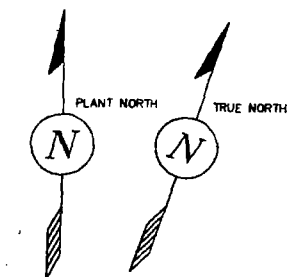
## **NOTE:**

- THIS DRAWING REPLACES CLEAN HARBORS OF CHICAGO, INC. DRAWING NO. 2916-C-04 ISSUE E, DATED 1/17/95.

**CHSI DWG. NO. 4203**

A RCRA PART B SUBMITTAL UPDATE		DATE	BY	APP. DATE
DATE	DESCRIPTION	DATE	BY	APP. DATE
<b>CleanHarbors</b> ENVIRONMENTAL SERVICES, INC. 1501 Washington Street Chicago, Illinois 60617 Telephone (781) 846-1800				
CLEAN HARBORS SERVICES, INC. 11800 S. STONY ISLAND AVENUE CHICAGO, ILLINOIS 60617				
<b>SITE PLAN EXISTING FACILITIES</b> <b>SHEET 1 OF 3</b>				
PROJECT NO. CH-114630		DRAWING NO. 4630-C-02		
SCALE 1" = 40'				

FOR CONT. OF FACILITIES SEE CHCI DWG. NO. 4204B SHEET 3 OF 3



FOR CONT. OF FACILITIES SEE CHCI DWG. NO. 4204B SHEET 1 OF 3

LEGEND

- 1. OFFICE BUILDING
- 3. MAINTENANCE BUILDING
- 4. TRANSPORTATION/RECEIVING BUILDING
- 6. EAST PUMP HOUSE
- 7. PERSONNEL/TRAINING CENTER
- 8. LABORATORY BUILDING
- 9. CONTROL BUILDING
- 10. MWRDGC LIFT STATION
- 13. RAIL CAR UNLOADING AREA (SEE CHCI DWG. NO. 4217)
- 14. TRUCK SCALE
- 15. TRUCK UNLOADING PLATFORM (SEE CHCI DWG. NO. 4248)
- 16. FLAMMABLE STORAGE TANK FARM (SEE CHCI DWG. NO. 4215)
- 18. PIPE RACKS
- 22. APPROVED FLAMMABLE TANK FARM SHREDDING SYSTEM (SEE CHCI DWG. NO. 4291)
- 23. SHREDDING PROCESS CONTROL ROOM
- 24. SHREDDING PROCESS BUILDING #1 (SEE CHCI DWG. NO. 4287 & 4288)
- 25. CONTAINER MANAGEMENT BUILDING (SEE CHCI DWG. NO. 4282)
- 26. IGNITABLE CONTAINER MANAGEMENT BUILDING (SEE CHCI DWG. NO. 4210 SHEET 2 OF 3)
- 27. STORM WATER LIFT STATION
- 28. NITROGEN STORAGE AREA
- 29. UTILITY BUILDING
- 30. FUEL OIL STORAGE
- 39. MAINTENANCE BUILDING ADDITION
- 40. DECONTAMINATION BUILDING
- 42. SHREDDING PROCESS BUILDING #2
- 43. FUELS BLENDING OPERATION (SEE CHCI DWG. NO. 4213 SHEET 2 OF 3)
- 46. FIRE EQUIPMENT BUILDING
- 59. TRUCK STAGING AREA (SEE CHCI DWG. NO. 4247)
- 60. ROLL-OFF PAD FOR FUELS BLENDING (SEE CHCI DWG. NO. 4213 SHEET 2 OF 3)
- 61. CONTAINER HANDLING DOCK (SEE CHCI DWG. NO. 4245)
- 62. TRUCK PAD (SEE CHCI DWG. NO. 4246)
- 63. OFFICE/DRIVERS FACILITIES
- 64. FOAM WATER VALVE HOUSE TANK FARM
- 65. FOAM WATER VALVE HOUSE UNLOADING AREA
- 66. FOAM WATER VALVE HOUSE CONTAINER AREA
- 67. TRUCK LOADING DOCK (SEE CHCI DWG. NO. 4283)

- 68. APPROVED METAL WASH PROCESS (SEE CHCI DWG. NO. 4290)
- 69. APPROVED TRUCK/ROLL-OFF PAD (SEE CHCI DWG. NO. 4292)
- 70. FORKLIFT ACCESS AREA

3	ADDED PROPERTY LINE
2	CHANGED TITLES OF AREA 22, 25, 67, 68 & 69.
1	ADDED AREAS 68, 69 & 70, CHANGED TITLES OF AREAS 22, 23, 24 & 42
0	AS BUILT
D	ADDED CONTOUR LINES AND GROUND SURFACE NOTATION. REVISED TITLE OF BUILDING 39.
C	REVISED FLAMMABLE STORAGE TANK FARM. RELOCATED 59. TRUCK STAGING AREA (PROPOSED)

CHSI DWG. NO. 4204B

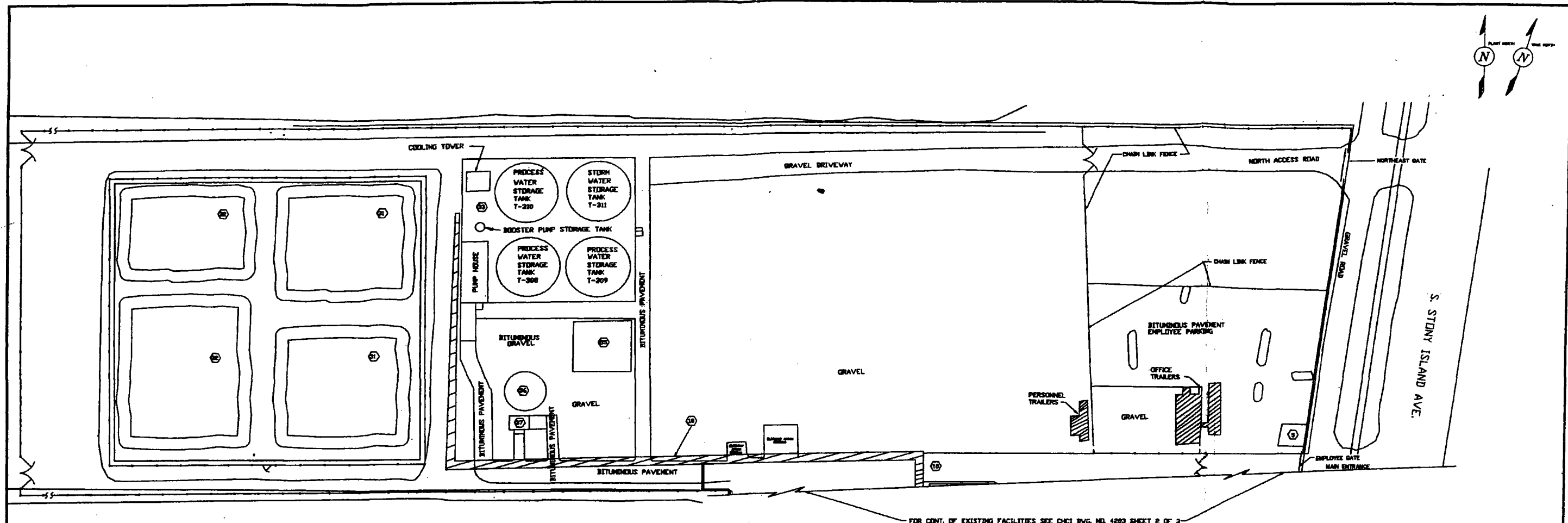
3	SEE REVISION NOTE 3	K.M.C.	A.M.L.	A.M.L.	1/30/94
2	SEE REVISION NOTE 2	K.M.C.	J.L.	J.L.	4/15/93
1	SEE REVISION NOTE 1	AAA.	A.M.L.	A.M.L.	1/19/90
0	SEE REVISION NOTE 0				
D	SEE REVISION NOTE D	K.M.C.	B.H.P.	B.H.P.	1/17/95
C	SEE REVISION NOTE C	K.M.C.	A.M.L.	A.M.L.	9/1/94
B	ISSUED FOR PERMIT				4/23/94
A	RCRA PART B MODIFICATION	K.M.C.	B.H.P.	B.H.P.	7/28/94

**Clean Harbors**  
ENVIRONMENTAL SERVICES, INC.  
1501 Washington Street  
Braintree, Massachusetts 02185  
Telephone (781) 849-1800

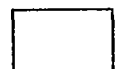
**CLEAN HARBORS SERVICES, INC.**  
11800 S. STONY ISLAND AVENUE  
CHICAGO, ILLINOIS 60617

**SITE PLAN -**  
**EXISTING & MODIFIED ACTIVITIES**  
**SHEET 2 OF 3**

PROJECT NO. CH114630	DRAWING NO. 2916-C-21
SCALE 1"=30'	



# LEGEND



EXISTING  
FACILITIES

## NOTE:

NOT ALL FACILITIES IDENTIFIED  
BELOW APPEAR ON THIS DRAWING.

- 5. GUARD HOUSE
- 18. PIPE RACKS
- 31. PROCESS WATER COOLING PONDS (NO LONGER IN USE)
- 32. STORM WATER PONDS (NO LONGER IN USE)
- 33. NEW PROCESS WATER COOLING & STORAGE SYSTEM
- 36. FIRE WATER TANK
- 37. FIRE WATER PUMP HOUSE
- 55. SEWER PRETREATMENT SYSTEM

CHCI DWG. NO. 4203

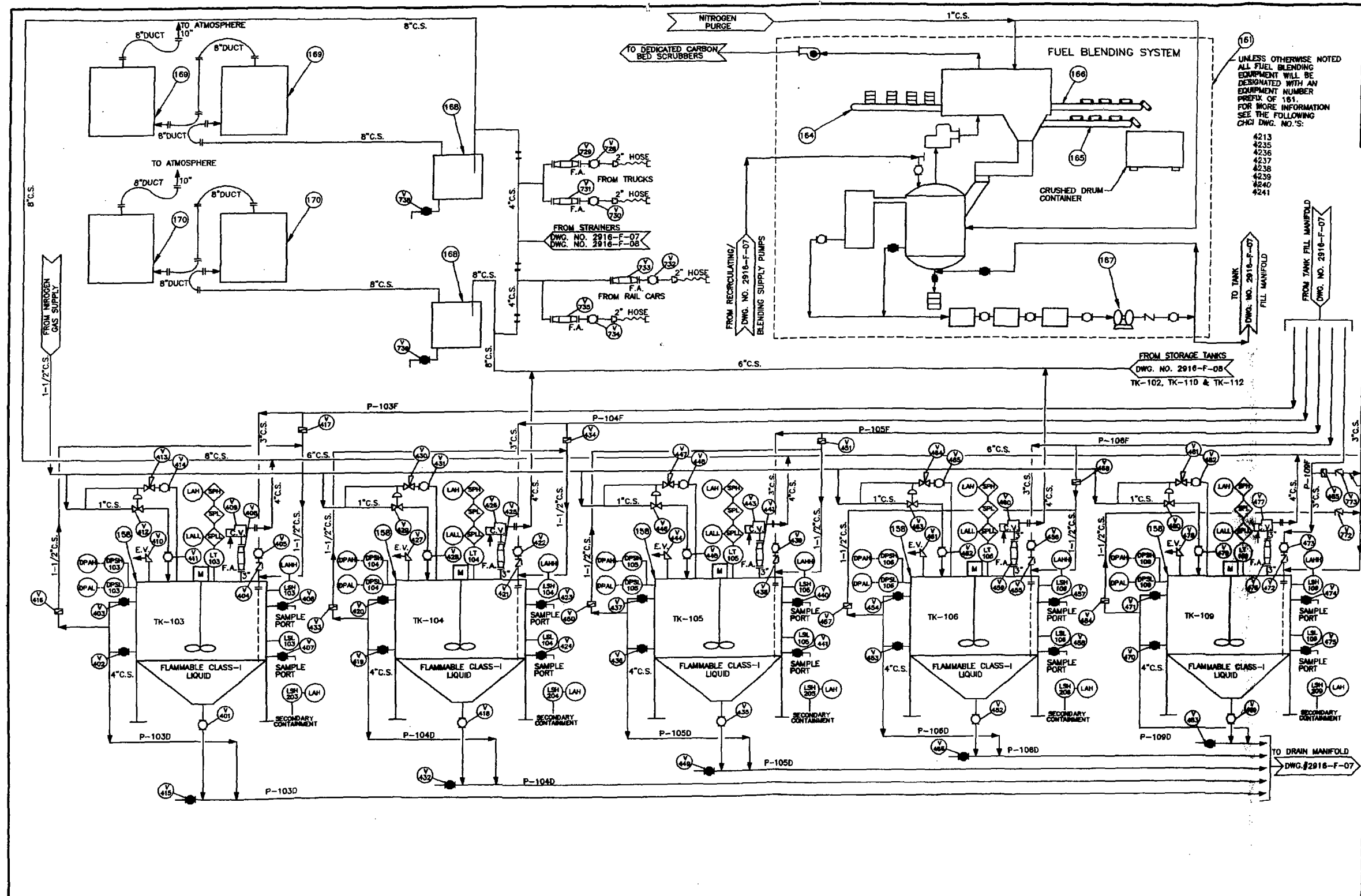
NO.	DESCRIPTION	DATE	BY	CHKD.	APPV.	DATE
A	RCRA PART B MODIFICATION					
<p><b>Clean Harbors</b> ENVIRONMENTAL SERVICES, INC. 225 Wood Road Braintree, Massachusetts 02184 Telephone (617) 849-1200/1800</p>						
<p>CLEAN HARBORS OF CHICAGO, INC. 11800 S. STONY ISLAND AVENUE CHICAGO, ILLINOIS 60617</p>						
<p><b>SITE PLAN EXISTING FACILITIES</b> <b>SHEET 3 OF 3</b></p>						
PROJECT NO. GW-5404		DRAWING NO. 2916-C-20				
SCALE 1"=50'						

RCRA Closure Documentation Report

Attachment 3

Unit Drawings





ITEM NO.	QTY.	DESCRIPTION
158	5	12,800 GAL. STORAGE TANKS (TK-103 TO TK-106 & TK-109)
161	SET	FUEL BLENDING SYSTEM
164	SET	DRUM FEED CONVEYORS A, B(LIFTING), C AND D
165	1	DEBRIS CONVEYOR H
166	2	DRUM DISCHARGE CONVEYORS F AND G
167	1	150 GPM TRANSFER PUMP, AIR OPERATED DOUBLE DIAPHRAGM PUMP, CAST IRON HOUSING WITH VITON DIAPHRAGMS.
168	2	MIST ELIMINATION
169	1	DUAL CARBON BED SCRUBBER
170	1	DUAL CARBON BED SCRUBBER

FROM SR-160A, SR-173A  
DWG. NO. 2916-F-07  
AND SR-163A

FROM SR-167A, SR-DCT  
DWG. NO. 2916-F-07  
SR-173B AND SR-160C

FROM STORAGE TANKS  
DWG. NO. 2916-F-08  
TK-101 & TK-107

- NOTES:**
1. ALL PIPING IS CARBON STEEL UNLESS OTHERWISE SPECIFIED.
  2. HOSE CONNECTIONS ARE MADE WITH QUICK COUPLING WITH A VALVE ON THE RIGID PIPE SIDE. PIPE CAPS AND HOSE CONNECTIONS ARE CS/316SS W/PTEE GASKET.
  3. ALL HOSES ARE CHEMICAL RESISTANT REINFORCED RUBBER.
  4. FOR CLARITY PIPE REDUCERS, COUPLINGS AND FLANGED CONNECTIONS ARE NOT SHOWN.

CHCI DWG. NO. 4207 6/26/95

0	SEE REVISION NOTE 0	B.H.P.	B.H.P.	7-24-95
H	SEE REVISION NOTE H			
G	SEE REVISION NOTE G			
F	SEE REVISION NOTE F	K.M.C.	A.M.L.	A.M.L. 9/1/94
E	RCRA PART B MODIFICATION	K.M.C.	B.H.P.	B.H.P. 7/20/94
D	RCRA PART B SUBMITTAL UPDATE	M.V.		12/18/92
C	RCRA PART B SUBMITTAL UPDATE	K.M.C.	B.H.P.	B.H.P. 2/14/92
B	RCRA PART B SUBMITTAL UPDATE	K.M.C.	A.M.L.	A.M.L. 2/1/91
A	RCRA PART B SUBMITTAL	K.M.C.	P.W.	P.W. 8/15/90

- LEGEND**
- HAND OPERATED ON-OFF VALVE (NORMALLY OPEN)
  - HAND OPERATED ON-OFF VALVE (NORMALLY CLOSED)
  - SWING CHECK VALVE
  - HAND OPERATED ON-OFF VALVE WITH REMOTE POSITION INDICATOR
  - AIR ACTUATED VALVE
  - SOLENOID VALVE
  - DAMPER VALVE
  - SELF PRESSURE REGULATING VALVE
  - MIXER
  - INDICATES DIRECTION OF FLOW
  - A.O.V. AIR SUPPLY
  - C.V. CONSERVATION VENT (PRESSURE & VACUUM)
  - E.V. EMERGENCY VENT FOR PRESSURE RELIEF
  - F.A. FLAME ARRESTER
  - C.S. CARBON STEEL
  - D.P.S. DIFFERENTIAL PRESSURE SWITCH
  - D.P.A.L. LOW PRESSURE ALARM
  - D.P.H.A. HIGH PRESSURE ALARM
  - L.A.H. LEVEL ALARM HIGH
  - L.A.H.H. LEVEL ALARM HIGH-HIGH
  - L.A.L. LEVEL ALARM LOW-LOW
  - L.S.H. LEVEL SWITCH HIGH
  - L.S.L. LEVEL SWITCH LOW
  - L.T. LEVEL TRANSMITTER - CONTINUOUS
  - S.P. SET POINT - LL (LOW-LOW LEVEL) - L (LOW LEVEL) - H (HIGH LEVEL)
  - T. TEMPERATURE INDICATOR
  - H.T.A. HIGH TEMPERATURE ALARM
  - S.P.R. SAFETY PRESSURE RELIEF
  - S.P.R.V. SAFETY PRESSURE RELIEF VALVE
  - A.O.D.D. AIR OPERATED DOUBLE DIAPHRAGM PUMP
  - C.P. CENTRIFUGAL PUMP

BOYER-SCHLASSINGER-TURNER, INC.  
CORPORATION - ENGINEERS  
300 WEST 34TH STREET CHICAGO, ILLINOIS 60617  
PROJECT 1280-1

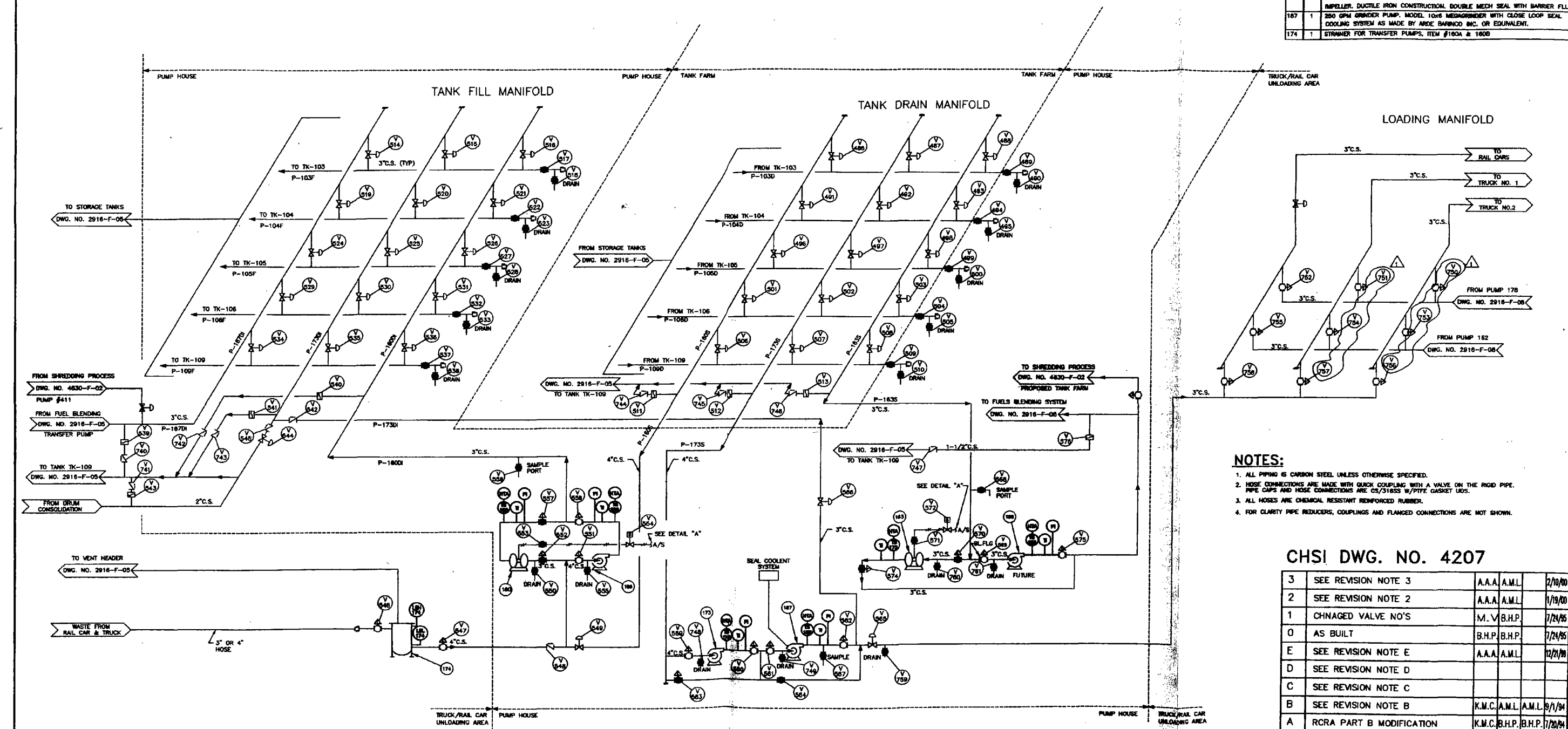
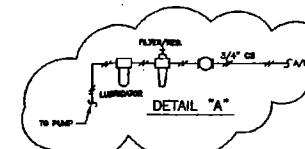
REV.	DESCRIPTION
0	ADDED STORED LIQUID IN TANKS, ADDED LSH & LAH FOR SECONDARY CONTAINMENT, REVISED DUCTING FOR OXYGEN COLLARS, REVISED H2 SUPPLY PIPING SIZE
H	ADDED SAFETY RELIEF INFO, ADDED CHECK VALVE IN TANK FILL LINE, REVISED LAGGING, ADDED SECOND SAMPLE PORT PER TANK, IDENTIFIED VALVES WITH POSITION INDICATORS, ADDED PIPE NUMBERS
G	REMOVED ITEM 680, REMOVED TANKS 101, 102, 107, 107G, REVISED (S), ADDED HIGH PRESS. ALARM, EXAMINED ITEM 167 TO AIR DIAPHRAGM PUMP, REVISED LAGGING, ADDED SAMPLE PORTS ON TANKS
F	ADDED PUMP SYMBOL TO LEGEND

**CleanHarbors**  
ENVIRONMENTAL SERVICES, INC.  
325 Wood Road  
Brimfield, Massachusetts 02184  
Telephone (617) 845-1200/1800

FILE  
CLEAN HARBORS OF CHICAGO, INC.  
11800 S. STONY ISLAND AVENUE  
CHICAGO, ILLINOIS 60617

PROCESS FLOW, PIPING & INSTRUMENTATION  
DIAGRAM - MODIFIED FUELS BLENDING OPERATION  
SHEET 3 OF 5

PROJECT NO. GW-5404  
DRAWING NO. 2916-F-05  
SCALE NONE



ITEM NO.	QTY.	DESCRIPTION
180	1	200 GPM RECEIVING PUMP, AIR OPERATED DOUBLE DIAPHRAGM PUMP, CAST IRON HOUSING WITH VITON DIAPHRAGMS.
186	1	200 GPM RECEIVING PUMP, HORIZONTAL CENTRIFUGAL PUMP WITH OPEN IMPELLER, IRON CONSTRUCTION, DOUBLE MECH SEAL WITH BARRIER FLUID.
183	1	100 GPM RECIRCULATING/BLENDING SUPPLY PUMP, AIR OPERATED DOUBLE DIAPHRAGM PUMP, CAST IRON HOUSING WITH VITON DIAPHRAGMS.
188	1	100 GPM RECIRCULATING/BLENDING SUPPLY PUMP, CENTRIFUGAL PUMP WITH OPEN IMPELLER, DUCTILE IRON CONSTRUCTION, DOUBLE MECH SEAL WITH BARRIER FLUID.
173	1	250 GPM BOOSTER PUMP, HORIZONTAL CENTRIFUGAL PUMP WITH OPEN IMPELLER, DUCTILE IRON CONSTRUCTION, DOUBLE MECH SEAL WITH BARRIER FLUID.
187	1	250 GPM GRINDER PUMP, MODEL 100S MEGAGRINDER WITH CLOSE LOOP SEAL COOLING SYSTEM AS MADE BY ARDE BARNOD INC. OR EQUIVALENT.
174	1	STRAINER FOR TRANSFER PUMPS, ITEM #100A & 160B

- NOTES:**
1. ALL PIPING IS CARBON STEEL UNLESS OTHERWISE SPECIFIED.
  2. HOSE CONNECTIONS ARE MADE WITH QUICK COUPLING WITH A VALVE ON THE RIGID PIPE. PIPE CAPS AND HOSE CONNECTIONS ARE CS/316SS W/PTFE GASKET UNOS.
  3. ALL HOSES ARE CHEMICAL RESISTANT REINFORCED RUBBER.
  4. FOR CLARITY PIPE REDUCERS, COUPLINGS AND FLANGED CONNECTIONS ARE NOT SHOWN.

- LEGEND**
- |  |   |   |  |
|--|---|---|--|
| <p>○ HAND OPERATED ON-OFF VALVE (NORMALLY OPEN)</p> <p>● HAND OPERATED ON-OFF VALVE (NORMALLY CLOSED)</p> <p>○/○ HAND OPERATED ON-OFF VALVE WITH REMOTE POSITION INDICATOR</p> <p>○/○ SWING CHECK VALVE</p> <p>○ AIR ACTUATED VALVE</p> <p>□ SOLENOID VALVE</p> <p>○ SELF PRESSURE REGULATING VALVE</p> <p>□ MIXER</p> <p>→ INDICATES DIRECTION OF FLOW</p> <p>○ HOSE CONNECTION</p> | <p>ADV AIR SUPPLY</p> <p>C.V. CONSERVATION VENT (PRESSURE &amp; VACUUM)</p> <p>F.A. EMERGENCY VENT FOR PRESSURE RELIEF</p> <p>C.S. FLAME ARRESTER</p> <p>CS CARBON STEEL</p> <p>DP DIFFERENTIAL PRESSURE SWITCH</p> <p>LPA LOW PRESSURE ALARM</p> <p>HPA HIGH PRESSURE ALARM</p> <p>LAL LEVEL ALARM HIGH</p> <p>LHL LEVEL ALARM HIGH-HIGH</p> <p>LALL LEVEL ALARM LOW-LOW</p> | <p>LH LEVEL SWITCH HIGH</p> <p>LL LEVEL SWITCH LOW</p> <p>LI LEVEL INDICATOR - CONTINUOUS</p> <p>SP SET POINT - LL (LOW-LOW LEVEL)<br/>- L (LOW LEVEL)<br/>- H (HIGH LEVEL)</p> <p>TI TEMPERATURE INDICATOR</p> <p>HTA HIGH TEMPERATURE ALARM</p> <p>DI SAFETY PRESSURE RELIEF</p> <p>SR SAFETY PRESSURE RELIEF VALVE</p> | <p>AD AIR OPERATED DOUBLE DIAPHRAGM PUMP</p> <p>C CENTRIFUGAL PUMP</p> <p>P PRESSURE INDICATOR</p> |
|--|---|---|--|

CHSI DWG. NO. 4207

REV.	DESCRIPTION	DATE	BY	CHKD.	APPR.
3	SEE REVISION NOTE 3	2/10/00	AAA	AML	
2	SEE REVISION NOTE 2	1/19/00	AAA	AML	
1	CHANGED VALVE NO'S	7/24/95	M.V.	B.H.P.	
0	AS BUILT	7/24/95	B.H.P.	B.H.P.	
E	SEE REVISION NOTE E	12/21/98	AAA	AML	
D	SEE REVISION NOTE D				
C	SEE REVISION NOTE C				
B	SEE REVISION NOTE B	9/1/94	K.M.C.	AML	
A	RCRA PART B MODIFICATION	7/20/94	K.M.C.	B.H.P.	

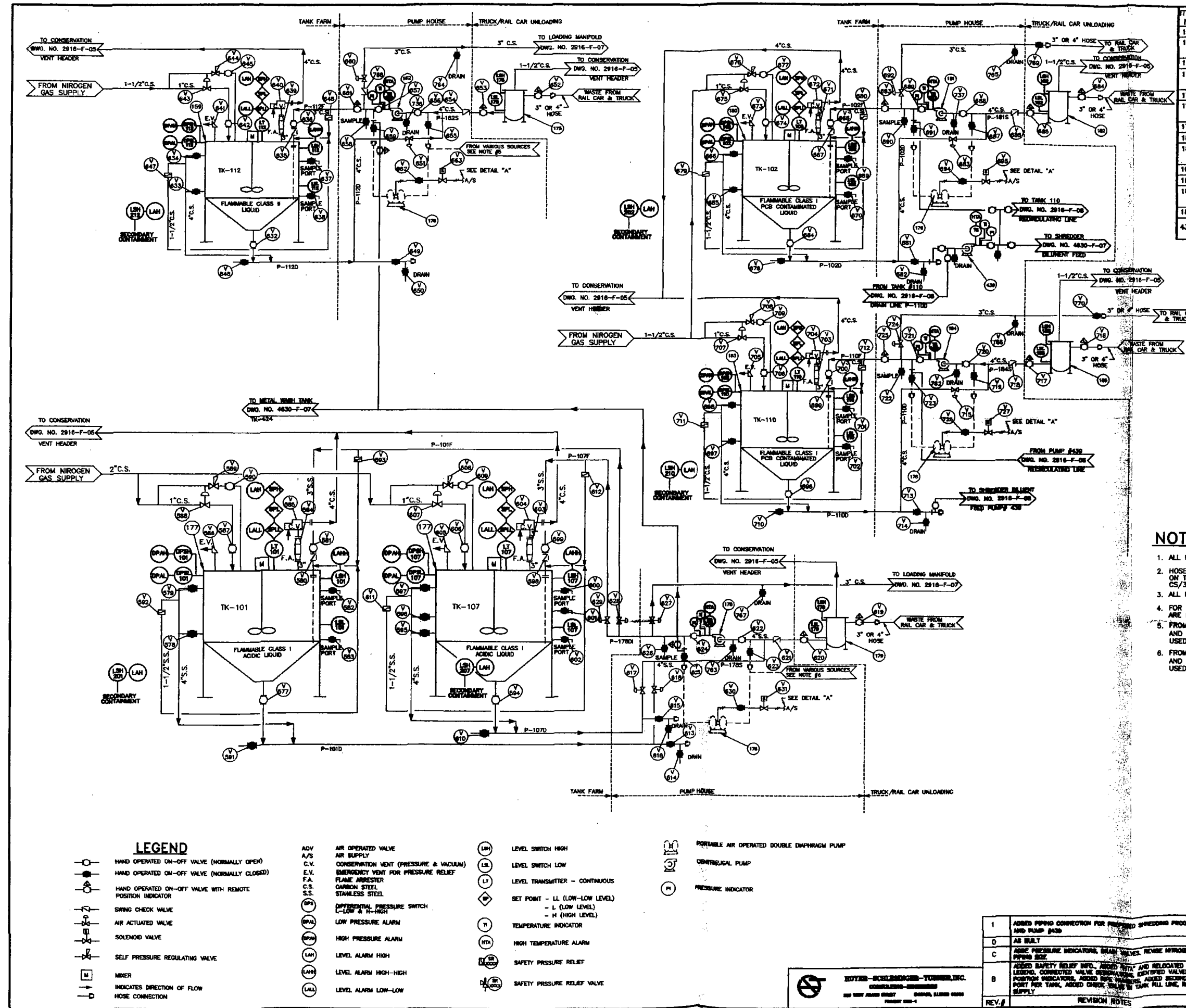
**CleanHarbors**  
ENVIRONMENTAL SERVICES, INC.  
1501 WASHINGTON STREET  
Brimfield, Massachusetts 01506  
Telephone (781) 849-1200/1800

**CLEAN HARBORS OF CHICAGO, INC.**  
11800 S. STONY ISLAND AVENUE  
CHICAGO, ILLINOIS 60617  
**PROCESS FLOW, PIPING & INSTRUMENTATION  
DIAGRAM - MODIFIED FUELS BLENDING OPERATION**  
SHEET 4 OF 5

PROJECT NO. GW-5404  
SCALE NONE  
DRAWING NO. 2916-F-07

REV.	DESCRIPTION
3	RELOCATED PIPING CONNECTIONS FOR PROPOSED TANK FARM UNIT #22
2	ADDED PIPING CONNECTIONS FOR PROPOSED TANK FARM UNIT #22
0	AS BUILT
E	ADDED PIPING CONNECTION FOR SHREDDING PROCESS TANK FARM
D	ADDED SAFETY RELIEF INFO, ADDED "ITA" AND RELOCATED "IT", REVERSED LINES, REVERSED ADV-TANK P-180-180C, IDENTIFIED VALVES WITH POSITION INDICATORS, ADDED PIPE NUMBERS
C	REMOVED ITEM #180,183 & 173, ADDED DETAIL "A", ADDED TEMP. INDICATORS, ADDED ITEM #1 TO STRAINERS, REVERSED ITEM DESCRIPTION TABLE, REVERSED NOTE #1, REVERSED LINES, REVERSED TANKS 101,102,107,110 MANIFOLD, REVERSED PUMPS #187, REVERSED TANK #112 & PIPING
B	ADDED PUMP & STRAINER BARNOD, CHANGED TO LUBRIC ADV-180 AND SEAL COOLANT SYSTEM TO LUBRIC ADV-180, REVERSED DIAPHRAGM LINE FROM PUMP ITEM NO. 183 TO TANK FILL MANIFOLD

BOYER-SCHLESINGER-TURNER, INC.  
ENGINEERS-ARCHITECTS  
200 WEST ARCADE STREET  
CHICAGO, ILLINOIS 60604  
PHONE 312-467-1000



ITEM NO.	QTY	DESCRIPTION
159	1	19,800 GAL. IGNITABLE WASTE STORAGE TANK - TK-112
162	1	200 GPM RECEIVING PUMP, HORIZONTAL CENTRIFUGAL PUMP WITH OPEN IMPELLER, IRON CONSTRUCTION, DOUBLE MECH SEAL WITH BARRIER FLUID.
175	1	STRAINER FOR TRANSFER PUMP, ITEM #162
178	2	200 GPM PORTABLE TRANSFER PUMP, AIR OPERATED DOUBLE DIAPHRAGM PUMP, CAST IRON HOUSING WITH VITON DIAPHRAGMS.
177	2	12,800 GAL. ACIDIC/IGNITABLE WASTE STORAGE TANK (TK-101 & TK-107)
178	1	200 GPM RECEIVING PUMP, HORIZONTAL CENTRIFUGAL PUMP WITH OPEN IMPELLER, SS316 CONSTRUCTION, DOUBLE MECH SEAL WITH BARRIER FLUID.
179	1	STRAINER FOR TRANSFER PUMP, ITEM #178
180	1	12,800 GAL. PCB WASTE STORAGE TANK - TK-102
181	1	200 GPM RECEIVING PUMP, HORIZONTAL CENTRIFUGAL PUMP WITH OPEN IMPELLER, IRON CONSTRUCTION, DOUBLE MECH SEAL WITH BARRIER FLUID.
182	1	STRAINER FOR TRANSFER PUMP, ITEM #181
183	1	12,800 GAL. PCB WASTE STORAGE TANK - TK-110
184	1	200 GPM RECEIVING PUMP, HORIZONTAL CENTRIFUGAL PUMP WITH OPEN IMPELLER, IRON CONSTRUCTION, DOUBLE MECH SEAL WITH BARRIER FLUID.
185	1	STRAINER FOR TRANSFER PUMP, ITEM #184
438	1	150 GPM DILUENT FEED/TRANSFER PUMP FOR PROPOSED SHREDDING SHREDDING SYSTEM

CHSI DWG. NO. 4207

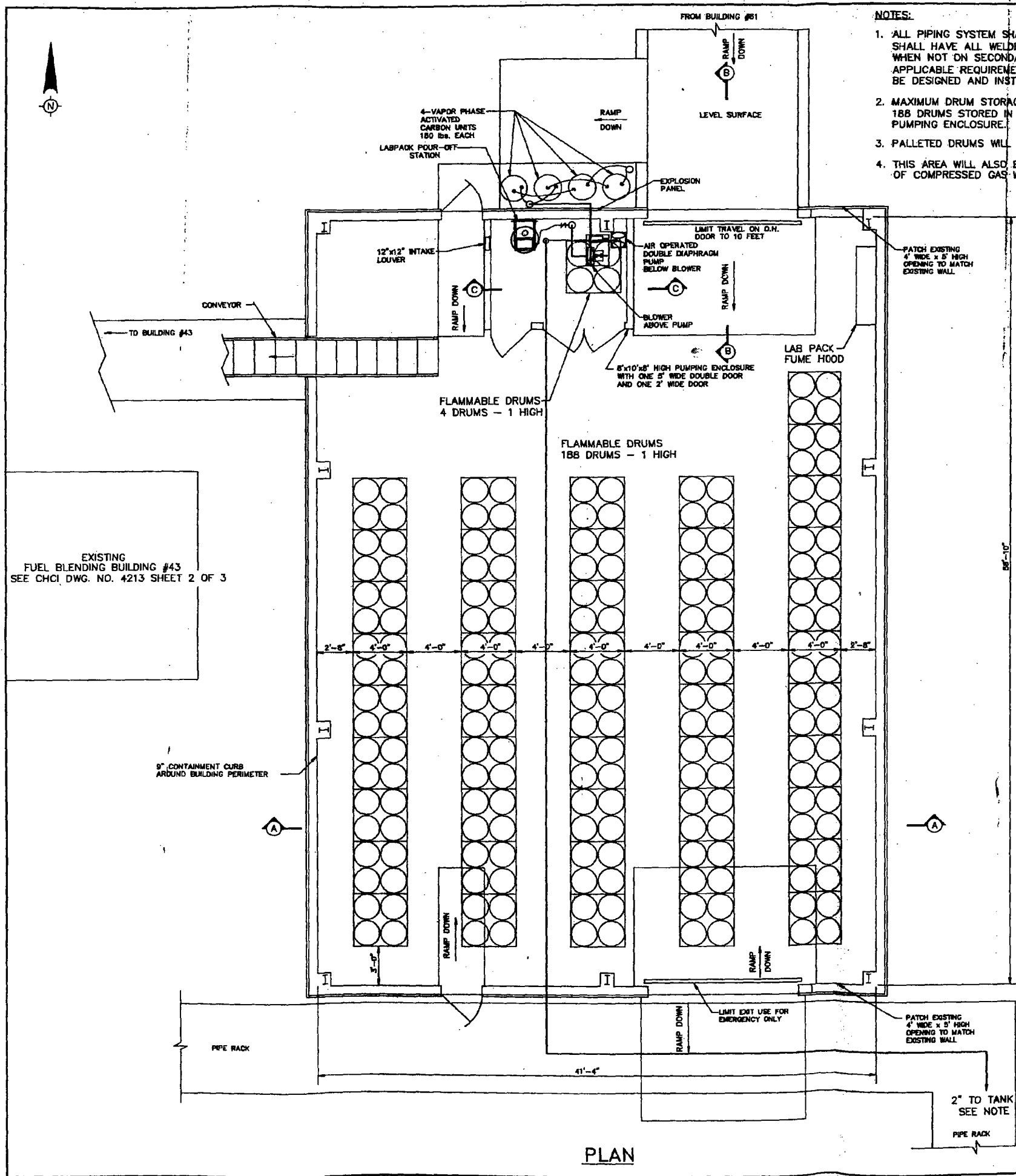
1	SEE REVISION NOTE 1	A.A.A.	A.M.L.	2/9/00	
0	AS BUILT	B.H.P.	B.H.P.	7-24-95	
C	SEE REVISION NOTE C				
B	SEE REVISION NOTE B				
A	RCRA PART B MODIFICATION				
DATE	DESCRIPTION	ORIG.	CHKD.	APPR.	DATE

**CleanHarbors**  
ENVIRONMENTAL SERVICES, INC.  
1501 WASHINGTON STREET  
Bryn Mawr, PA 19005-1214  
Telephone (717) 849-1200/1800

TITLE	
CLEAN HARBORS SERVICES, INC. 11800 S. STONY ISLAND AVENUE CHICAGO, ILLINOIS 60617	
PROCESS FLOW, PIPING & INSTRUMENTATION DIAGRAM — TANK FARM OPERATION	
SHEET 5 OF 5	
PROJECT NO.	DRAWING NO.
GW-5404	2916-F-08
SCALE	
NONE	

NOTES - SCHLACHER-TURNER, INC.  
CONSULTING ENGINEERS  
100 WEST JAMES STREET  
CHICAGO, ILLINOIS 60604  
PHONE 312-467-1100

1	ADDED PIPING CONNECTION FOR PROPOSED SHREDDING PROCESS AREA AND PUMP #438
0	AS BUILT
C	ADDED PRESSURE INDICATORS, DRAIN VALVES, REMOVED NITROGEN SUPPLY PIPING SEE
B	ADDED SAFETY RELIEF INFO, ADDED "H" AND RELOCATED "H", REVERSED LEGEND, CORRECTED VALVE DESIGNATIONS, IDENTIFIED VALVES WITH POSITIVE INDICATORS, ADDED "H" AND "H" INDICATORS, ADDED SECOND SAMPLE PORT PER TANK, ADDED CHECK VALVE TO TANK FILL LINE, REVERSED "H" SUPPLY
REV.	DESCRIPTION
1	ADDED PIPING CONNECTION FOR PROPOSED SHREDDING PROCESS AREA AND PUMP #438
0	AS BUILT
C	ADDED PRESSURE INDICATORS, DRAIN VALVES, REMOVED NITROGEN SUPPLY PIPING SEE
B	ADDED SAFETY RELIEF INFO, ADDED "H" AND RELOCATED "H", REVERSED LEGEND, CORRECTED VALVE DESIGNATIONS, IDENTIFIED VALVES WITH POSITIVE INDICATORS, ADDED "H" AND "H" INDICATORS, ADDED SECOND SAMPLE PORT PER TANK, ADDED CHECK VALVE TO TANK FILL LINE, REVERSED "H" SUPPLY

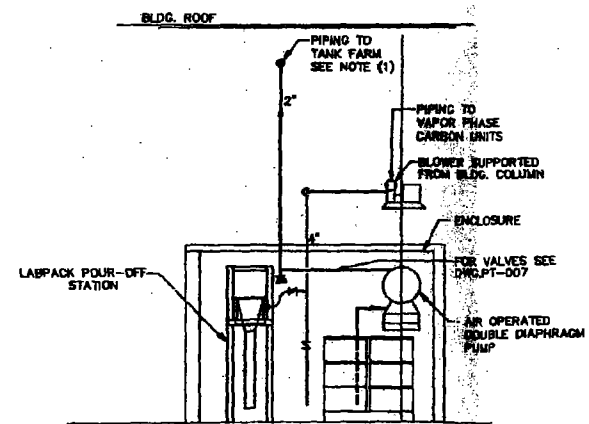
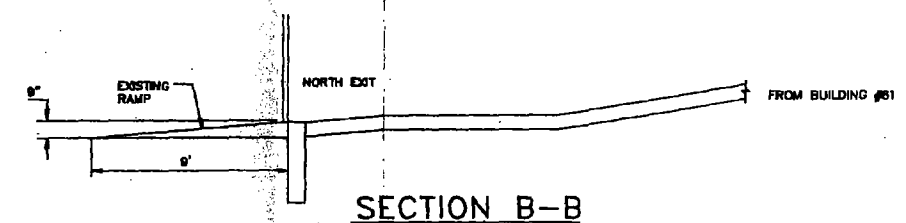
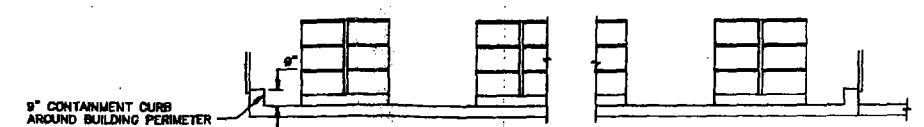


**NOTES:**

1. ALL PIPING SYSTEM SHALL BE ABOVEGROUND AND/OR OVERHEAD. PIPING SHALL HAVE ALL WELDED JOINTS AND WELDED FLANGE CONNECTIONS WHEN NOT ON SECONDARY CONTAINMENT, AND SHALL MEET ALL APPLICABLE REQUIREMENTS OF 40 CFR 264.193 (f). ALL PIPING SHALL BE DESIGNED AND INSTALLED PER ASME/ANSI B.31.3.
2. MAXIMUM DRUM STORAGE CAPACITY 10,560 GAL., 192-55 GAL DRUMS. 188 DRUMS STORED IN FLAMMABLE STORAGE AREA AND 4 DRUMS IN PUMPING ENCLOSURE.
3. PALLETED DRUMS WILL BE STACKED A MAXIMUM OF 1 HIGH.
4. THIS AREA WILL ALSO BE USED FOR THE MANAGEMENT AND STORAGE OF COMPRESSED GAS WASTES.

**SECONDARY CONTAINMENT CALCULATIONS:**

REQUIRED CONTAINMENT CAPACITY  
10% OF TOTAL VOLUME  
= 0.1 x 10,560  
= 1,056 GALS.  
TOTAL VOLUME OF BUILDING = 41.33' x 58.83' x 0.75' = 1,823.5 cu. ft.  
VOLUME OCCUPIED BY RAMPS  
(2) 13.34'W x 9'L RAMP = 2 x 1/2 x 13.34' x 9' x 0.75' = 90.05 cu. ft.  
(2) 3.5'W x 9'L RAMPS = 2 x 1/2 x 3.5' x 9' x 0.75' = 23.63 cu. ft.  
MISC. ITEMS, ALLOWANCE = 50 cu. ft.  
AVAILABLE SECONDARY CONTAINMENT VOLUME = 1,659.82 cu. ft.  
= 12,415 GALS.



**SECTION C-C**  
DRUM PUMPING STATION

**LEGEND:**

1 HIGH PALLETED DRUM CONFIGURATION

0	AS BUILT
D	REVISED VAPOR PHASE CARBON UNITS, PUMPING ENCLOSURE, RAMPS AND CONVEYOR. ADDED POUR-OFF STATION AND NOTE 4.
C	ADDED LAB PACK FUME HOOD. REVISED NUMBER OF DRUMS STORED, REQUIRED CONTAINMENT CALCULATIONS AND SIZE OF PUMPING ENCLOSURE.
B	ADDED SECTION VIEWS B-B, C-C AND DRUM PUMPING ENCLOSURE ROOM. REVISED PUMPING PIPING, NOTES AND SECONDARY CONTAINMENT CALCULATIONS.

CHCI DWG. NO. 4210

0	AS BUILT	M.V. B.H.P.	9/8/85
D	SEE REVISION NOTE D	K.M.C.	8/28/85
C	SEE REVISION NOTE C	K.M.C. B.H.P.	1/17/86
B	SEE REVISION NOTE B	K.M.C. A.M.L.	9/1/84
A	RCRA PART B MODIFICATION	K.M.C. B.H.P.	7/20/84

**CleanHarbors**  
ENVIRONMENTAL SERVICES, INC.  
325 Wood Road  
Braintree, Massachusetts 02184  
Telephone (617) 849-1200/1800

CLEAN HARBORS OF CHICAGO, INC.  
11800 S. STONY ISLAND AVENUE  
CHICAGO, ILLINOIS 60617

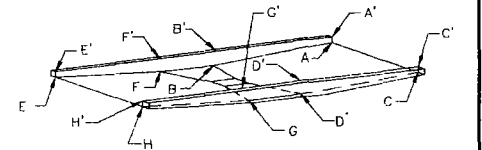
CONTAINER MANAGEMENT LAYOUT BUILDING #26  
SHEET 2 OF 3

PROJECT NO. GW-5404 DRAWING NO. 2916-M-18  
SCALE 1/4" = 1'-0"



Marie Vanagas  
Exp. 11-30-95

CONTAINMENT CAPACITY OF THE TRIANGULAR PAD SECTIONS  
 $EE' = HH' = AA' = CC' = 3'$   
 $FF' = BB' = DD' = GG' = 7 \frac{1}{2}'$   
 MAXIMUM DEPTH OF LIQUID = 4 1/2"  
 CAPACITY =  $(2) \times 1/2 \times (19' - 8") \times (15' - 2") \times 4 \frac{1}{2} \times 7.481$   
 = 19.67' x 15.17' x 0.375 x 7.481  
 = 837 GALS.  
 CONTAINMENT CAPACITY OF THE CENTER SECTION  
 ASSUME MINIMUM UNIFORM DEPTH OF 4 1/2"  
 = 14' x 19.67' x 0.375 x 7.481  
 = 772 GALS.  
 SUMP CAPACITY = 2' x 2' x 2' x 7.481 = 59 GALS.  
 TOTAL CONTAINMENT CAPACITY = 1,668 GALS.

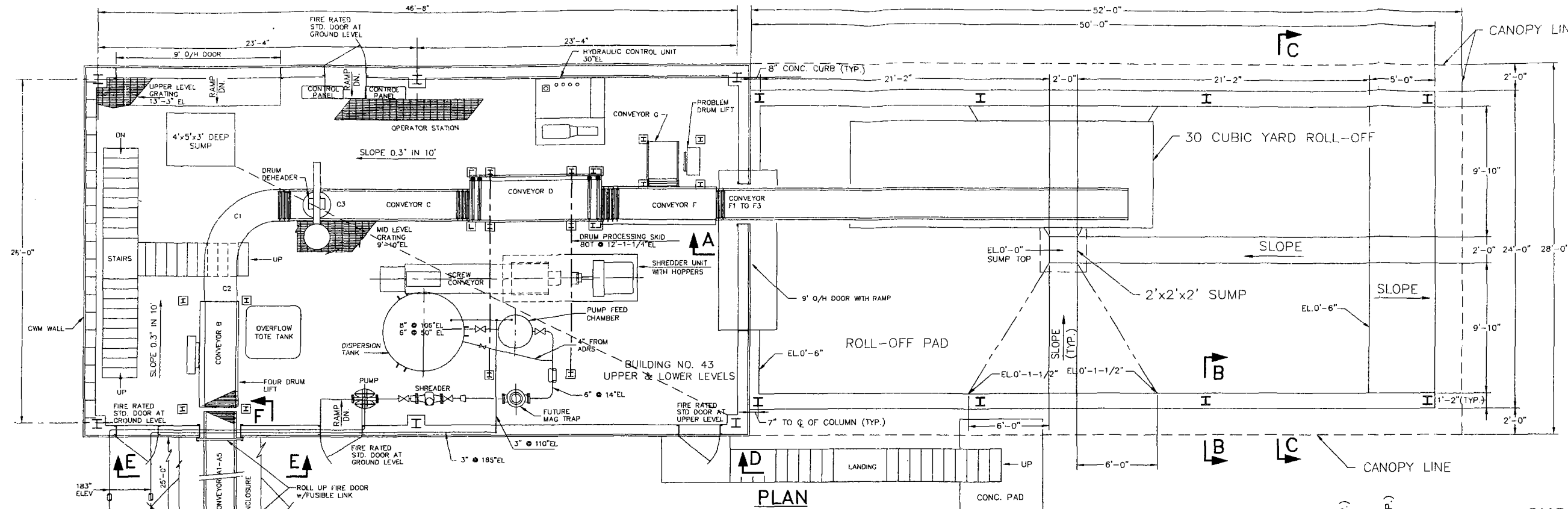


SECTION B-B  
 SCALE: 1/2" = 1'-0"

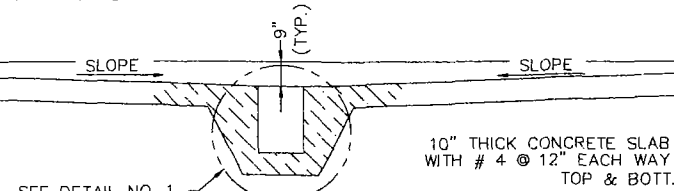
DETAIL NO. 1  
 SCALE: 1/2" = 1'-0"

SECTION E-E  
 SCALE: 1/4" = 1'-0"

SECTION F-F  
 SCALE: 1/4" = 1'-0"

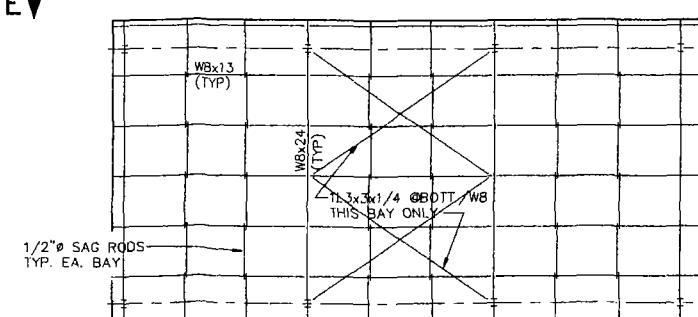


PLAN  
 SCALE: 1/4" = 1'-0"

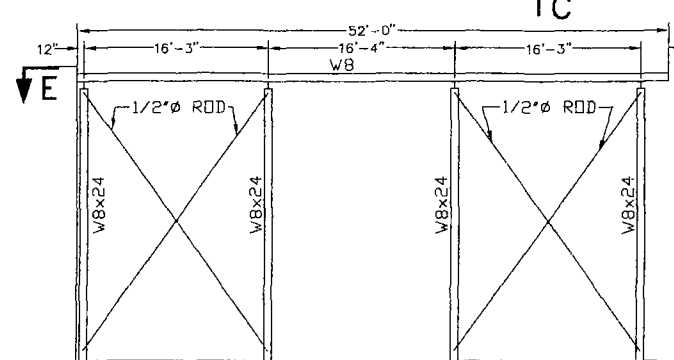


SECTION A-A  
 SCALE: HORIZ. 1/4" = 1'-0", VERT. 3/8" = 1'-0"

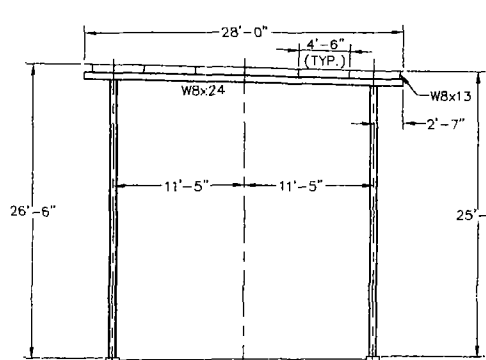
CONTAINMENT CAPACITY CALCULATIONS FOR BUILDING #43  
 REQUIRED CONTAINMENT CAPACITY  
 = VOL. OF THE LARGEST TANK  
 = VOL. OF THE DISPERSION TANK + VOL. OF THE OVERFLOW TANK  
 = 1,493 + 311 GALS.  
 = 1,804 GALS.  
 AVAILABLE CONTAINMENT CAPACITY  
 = 26' x 46.67' x 0.5' x 7.481  
 = 4,538 GALS.



ROOF PLAN "E-E"  
 SCALE: 1/8" = 1'-0"



SECTION D-D  
 SCALE: 1/8" = 1'-0"



SECTION C-C  
 SCALE: 1/8" = 1'-0"  
 TYP. FRAME @ 16'-4" SPACING

CHSI DWG. NO. 4213

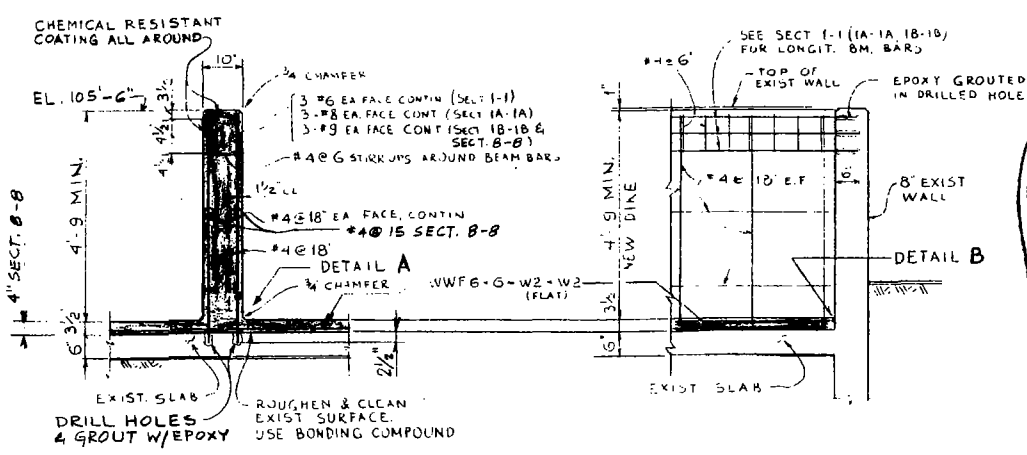
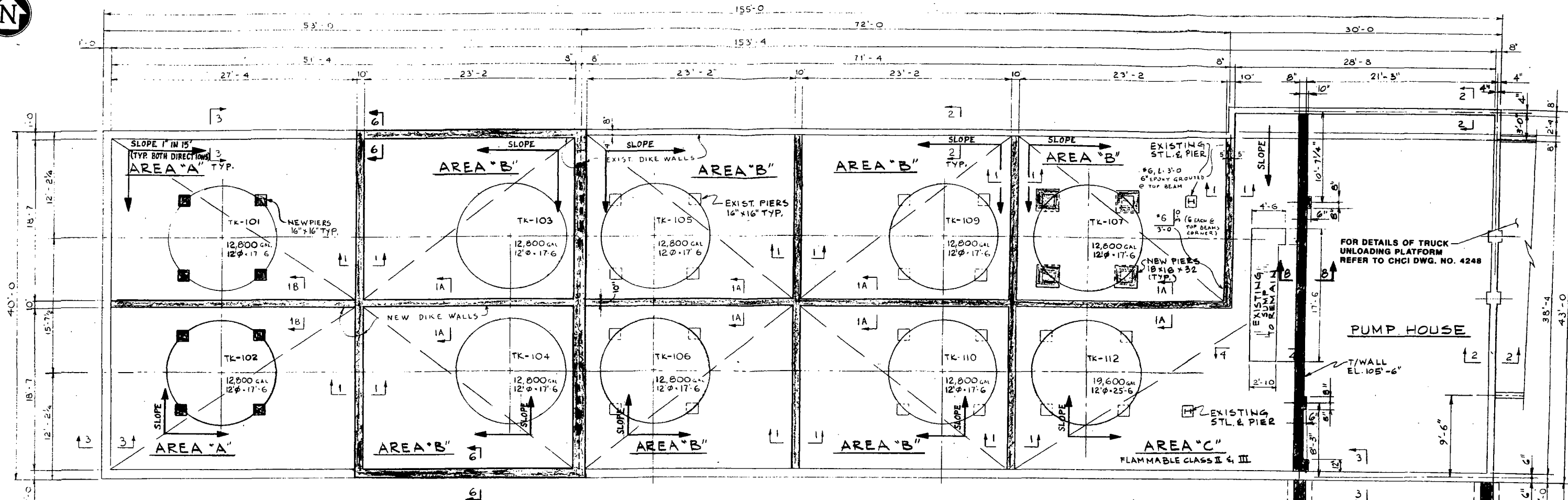
1	SEE REVISION NOTE 1	K.M.C.	A.M.L.	A.M.L.	1/30/04
0	AS BUILT, SEE REVISION NOTE 0	K.M.C.	B.H.P.	B.H.P.	9/15/95
G	SEE REVISION NOTE G	K.M.C.	B.H.P.	B.H.P.	1/17/95
F	SEE REVISION NOTE F	K.M.C.	A.M.L.	A.M.L.	9/1/94
E	RCRA PART B MODIFICATION	K.M.C.	B.H.P.	B.H.P.	7-20-94
D	RCRA PART B SUBMITTAL UPDATE	TJR	MV	JIR	12-18-92
C	RCRA PART B SUBMITTAL UPDATE	TJG	JIR	JIR	2-14-92
B	RCRA PART B SUBMITTAL UPDATE	PVS	INS	A.M.L.	2/1/91
A	RCRA PART B SUBMITTAL	K.M.C.	P.W.	P.W.	9/19/90
REV.	DESCRIPTION	DRWN.	CHNG.	APPR.	DATE

**CleanHarbors**  
 ENVIRONMENTAL SERVICES, INC.  
 1501 Washington Street  
 Braintree, Massachusetts 02185  
 Telephone (617) 849-1200/1800

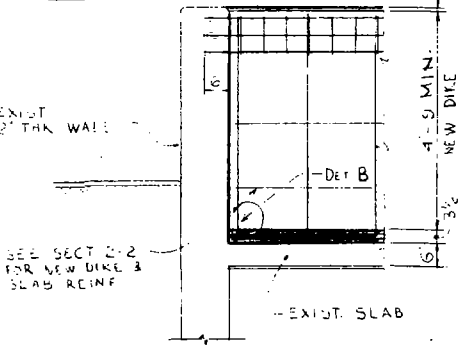
**CLEAN HARBORS SERVICES, INC.**  
 11800 S. STONY ISLAND AVENUE  
 CHICAGO, ILLINOIS 60617  
**EQUIPMENT LAYOUT  
 FUELS BLENDING OPERATION  
 SHEET 2 OF 3**  
 PROJECT NO. CH114630 DRAWING NO. 2916-M-07  
 SCALE AS NOTED

1	SHOWED SUMP & FLOOR SLOPE
0	REVISED EQUIPMENT LAYOUT IN BUILDING 43 AND CONVEYOR ENCLOSURE BETWEEN BLDG. 43 AND 26. ADDED ROLL-OFF ROOF & STEEL SIZES
G	REVISED CONTAINMENT CAPACITY CALCULATIONS.
F	ADDED SECTIONS C-C & D-D AND CONTAINMENT CAPACITY CALCULATIONS.
REV.	REVISION NOTES

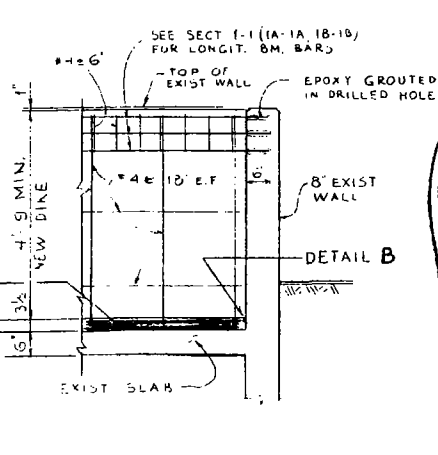
**HOYER-SCHLESINGER-TURNER, INC.**  
 CONSULTING-ENGINEERS  
 300 WEST ADAMS STREET CHICAGO, ILLINOIS 60606  
 PROJECT #1785



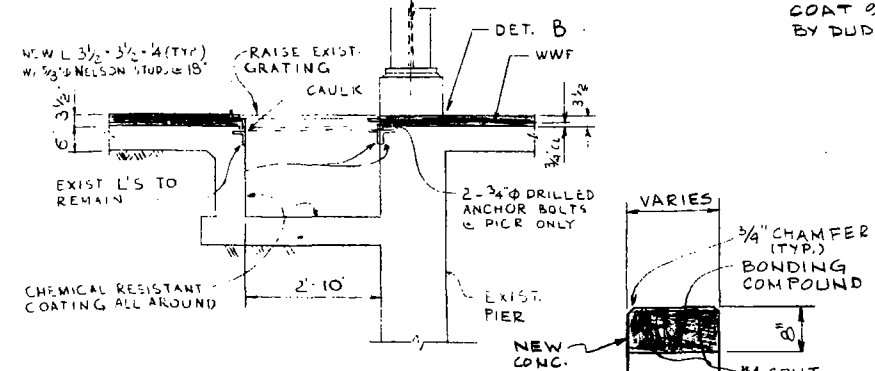
SECTION 1-1, 1A, 1B, 1B  
SCALE 1/2" = 1'-0"



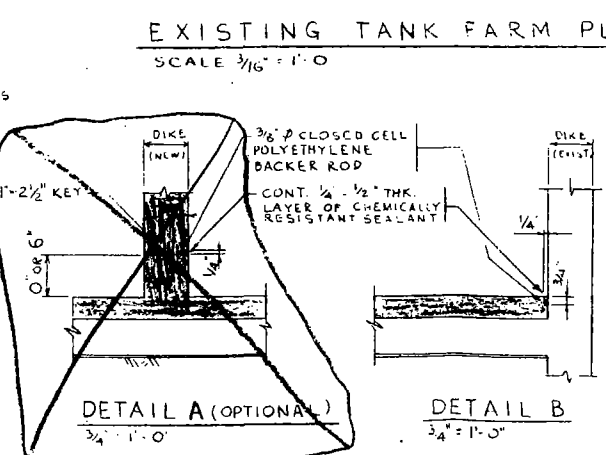
SECTION 3-3  
SCALE 1/2" = 1'-0"



SECTION 2-2  
SCALE 1/2" = 1'-0"



SECTION 4-4  
SCALE 1/2" = 1'-0"



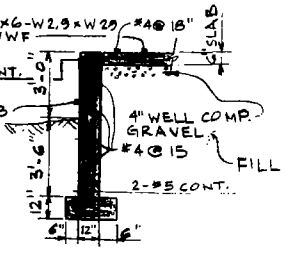
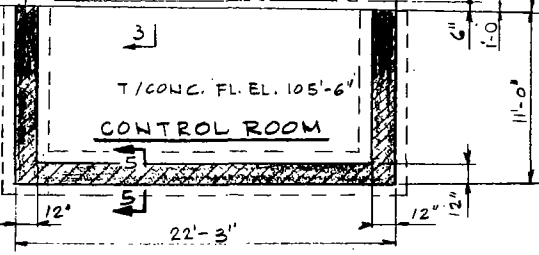
EXISTING TANK FARM PLAN  
SCALE 3/16" = 1'-0"

12. ALL CONCRETE CONTAINMENT SURFACES SHALL BE COATED WITH PROTECTO-COAT 920 SYSTEM AS MANUFACTURED BY DUDICK INC.

- GENERAL NOTES**
- All concrete mixing and placing shall conform to the requirements of ACI 301-82, "Specifications for Structural Concrete for Buildings" and ACI 318-89, "Building Code Requirements for Reinforced Concrete".
  - All concrete shall have the minimum compressive strength at 28 days f'c = 4000 psi and minimum slump = 4".
  - Concrete shall be air entrained with air content 4% - 6% for exterior exposed concrete.
  - Minimum concrete cover for reinforcement to be 3" for concrete cast against soil and 1-1/2" for concrete exposed to weather.
  - All reinforcing bars shall be Grade 60 billet steel bars conforming to ASTM A615 Specifications and shall be bent and placed in accordance with ACI 318-89 Code.
  - All dimensions to be verified in field.
  - Minimum lap for reinforcing steel to be 30 bar diameters.
  - Metal reinforcing, at the time concrete is placed, to be free from loose, flaky rust, oil or other coatings that will destroy or reduce the bond.
  - All exposed concrete to have a 3/4" chamfer.
  - All floors, walls, piers and sumps inside the tank farm shall be coated using chemical resistant coating system specified by Clean Harbors.
  - Shop drawings shall be submitted for HST approval.

**CONTAINMENT CAPACITY CALCULATIONS**

AREA DESCRIPTION	ITEM	UNITS	FORMULA	AREA "A"	AREA "B"	AREA "C"
AREA DIMENSIONS						
AREA LENGTH	L	FEET		27.34	23.17	24.00
AREA WIDTH	W	FEET		18.58	18.58	41.34
AREA HEIGHT	H	FEET		4.41	4.75	4.75
REQD CONTAINMENT PER RCRA						
TANK CAPACITY	T	GALS		12,800.00	12,800.00	19,600.00
RAINFALL	R	FEET		0.39	0.39	0.39
ALLOWANCE	A	FEET	(L)(W)(H)(7.48)	1,481.87	1,255.85	2,175.27
TOTAL REQD. CONTAINMENT	TR	GALS.	T + A	14,281.87	14,055.85	21,775.37
AVAILABLE CAPACITY						
VOLUME OF CONTAINMENT AREA	V1	GALS.	(L)(W)(H)(7.48)	16,754.54	15,295.62	26,492.41
VOLUME OF COLUMN LEGS	N2	GALS.		4.00	4.00	4.00
NO OF LEGS	VC	GALS.	(1.0 X 1.0)(H)(7.48)	35.53	35.53	35.53
VOLUME OF EACH LEG	V2	GALS.	(N2)(VC)	142.12	142.12	142.12
TOTAL AVAILABLE CAPACITY	TA	GALS.	V1 - V2	16,612.42	15,153.5	26,350.29



SECTION 5-5  
SCALE 1/4" = 1'-0"

CHCI DWG. NO. 4215

B	ADDED RCRA HAZ WASTE CONTAINMENT	INS			
A	RCRA PART B MODIFICATIONS	INS			

**Clean Harbors**  
ENVIRONMENTAL ENGINEERING, INC.  
325 Vood Road  
Bryn Mawr, Pennsylvania 19004  
Telephone (610) 849-1200/1800

CLEAN HARBORS OF CHICAGO, INC.  
11800 S. STONY ISLAND AVENUE  
CHICAGO, ILLINOIS 60617  
**MODIFIED FLAMMABLE STORAGE  
TANK FARM - UNIT #16**  
SHEET 1 OF 4

PROJECT NO. GW-5404	DRAWING NO.
SCALE AS NOTED	5404-S-04/0

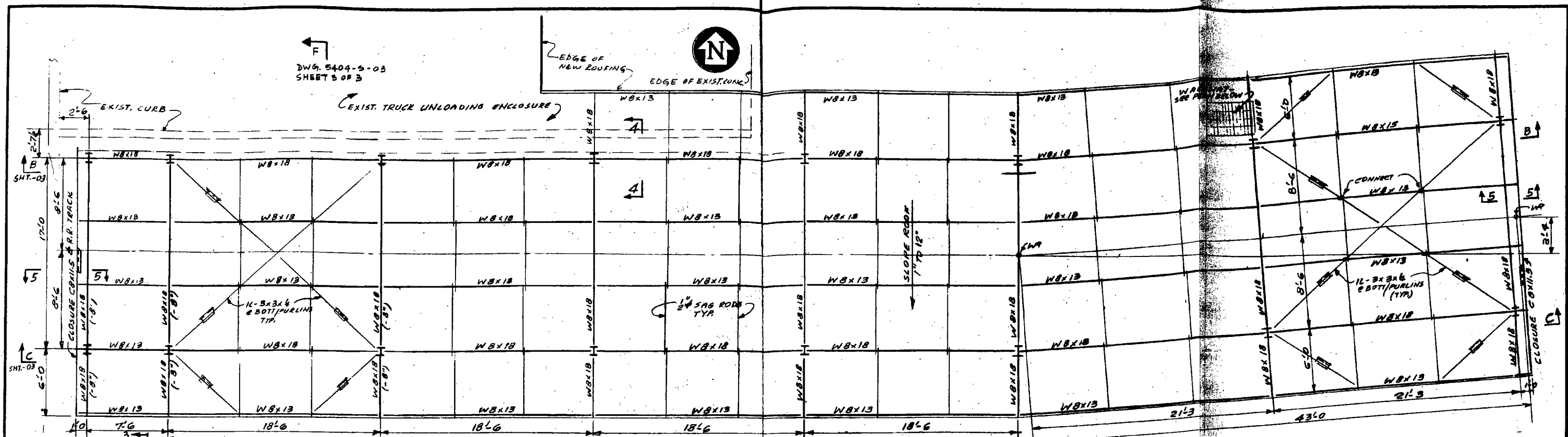
O	AS BUILT	MV	PJB	7-24-96
F	ISSUED FOR PUMP HOUSE A.C.R. PERMIT	MV	PJB	3-16-96
E	REVISED SEC. 8-B & CONTROL ROOM	MV	PJB	2-9-96
D	REVISED TANK CAPACITIES & SEC. 1-1 ADDED PUMP HOUSE WALL STIFFENERS	MV	PJB	1-30-95
C	DELETED RCRA HAZ WASTE CONTAINMENT REQUIREMENTS REVISED CONTAIN. CALC.	MV	PJB	10-28-94

**HOYER-SCHLESINGER-TURNER, INC.**  
CONSULTING ENGINEERS  
301 WEST ADAMS STREET  
CHICAGO, ILLINOIS 60606  
PROJECT NO. 17851

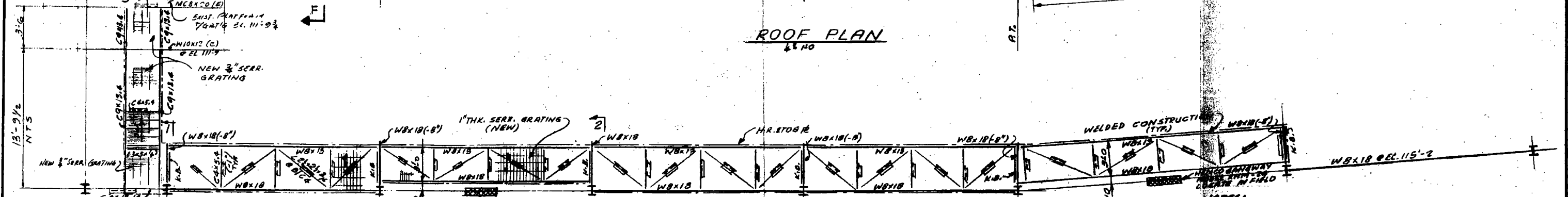
1	ADDED SLOPED DIRECTIONS	X.M.C.R.D.	1-30-94
ISSUE	DESCRIPTION	DRAWN	CHKD



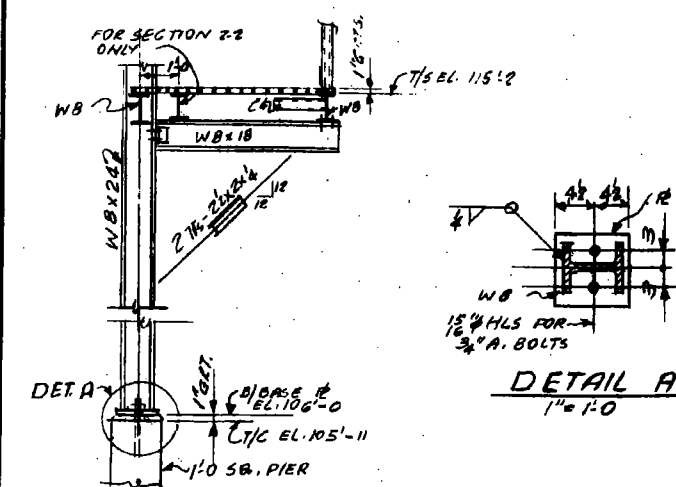




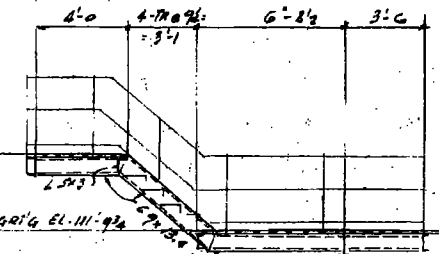
ROOF PLAN  
4-10



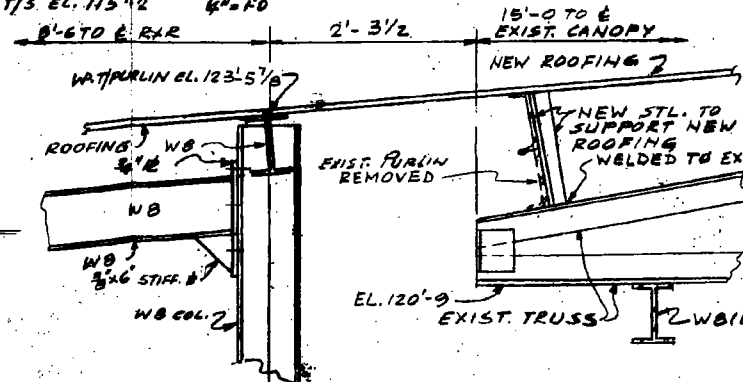
WALKWAY PLAN AT EL. 115'-3"



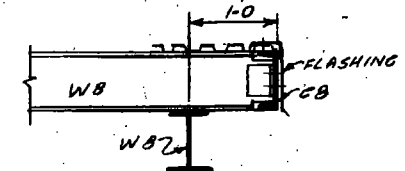
DETAIL A  
1" = 1'-0"



SECTION 3-3  
1" = 1'-0"



SECTION 4-4  
1" = 1'-0"



SECTION 5-5  
1" = 1'-0"

- NOTES:
1. ALL STRUCTURAL STEEL SHALL CONFORM TO ASTM A-36 SPECIFICATIONS AND SHALL BE FABRICATED AND ERECTED IN ACCORDANCE WITH THE LATEST AISC SPEC.
  2. SHOP CONNECTIONS TO BE WELDED OR BOLTED WITH 3/4" A.S. BOLTS. FIELD CONNECTIONS SHALL BE BOLTED WITH 3/4" A.S. A-308 FRICTION TYPE BOLTS OR WELDED. GUSSET PLATES 3" MIN. THICK. OPEN HOLES 1/8" UNLESS NOTED.
  3. ALL WELDING TO CONFORM TO THE LATEST AWS CODE & SHALL BE DONE BY CERTIFIED WELDERS.
  4. FLOORS - 3/4" THK. SERRATED TYPE STEEL GRATING, BEARING BARS 3/4" x 1/2" x 1/4" SPACED @ 12" ON C, CROSS BARS 2" x 1/4" WELD EVERY 4" BARS TO THE SUPPORTING BEAMS.
  5. H.R. & H.R. BOLTS ARE 1/2" SCH. 40 PIPE, TOP PLATE 4" x 4" AND ALL SHALL RECEIVE ONE FINISH COAT OF OSHA YELLOW.
  6. (E) - DENOTES EXIST. MEMBER.
  7. ALL STRUCTURAL STEEL TO RECEIVE ONE SHOP COAT OF RED OXIDE PRIMER.
  8. CONTRACTOR SHALL CO-ORDINATE ALL WORK WITH OWNER'S PROJECT ENGINEER.
  9. WORK THIS DWG. WITH DWG. 5404-S-02, FOR PDN SEE DWG. 5404-S-01.
  10. STEEL FABRICATOR TO VERIFY ANCHOR BOLT LOCATION FOR COLUMNS IN FIELD PRIOR STEEL FABRICATION.

CHCI DWG. NO. 4217

REV	DESCRIPTION	DATE	BY	CHK	APP
0	ISSUED FOR CONSTRUCTION				
1	ISSUED FOR PERMIT				
2	REVISIONS				

**Clean Harbors**  
ENVIRONMENTAL ENGINEERING, INC.

CLEAN HARBORS OF CHICAGO, INC.  
11800 S. STONY ISLAND AVENUE  
CHICAGO, ILLINOIS 60617

SUPERSTRUCTURE FOR R.R. CAR UNLOADING  
AREA #13 - PLANS AND SECTIONS  
SHEET 2 OF 3

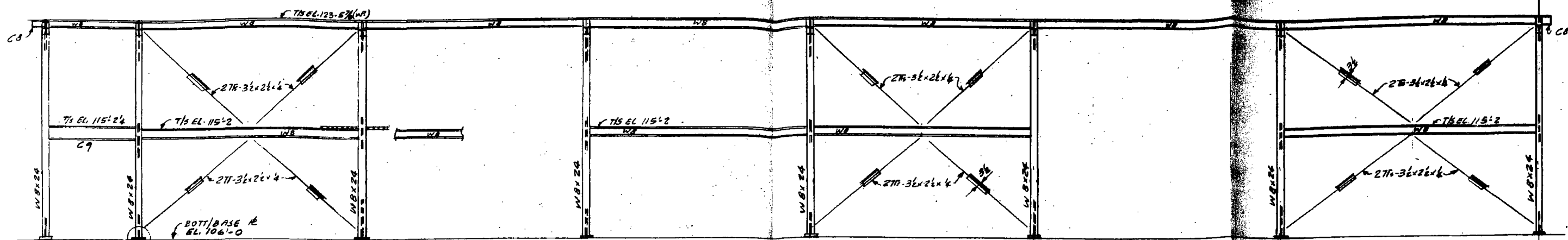
**HOYER-SCHLESINGER-TURNER, INC.**  
CONSULTING ENGINEERS

300 WEST ADAMS STREET  
CHICAGO, ILLINOIS 60606

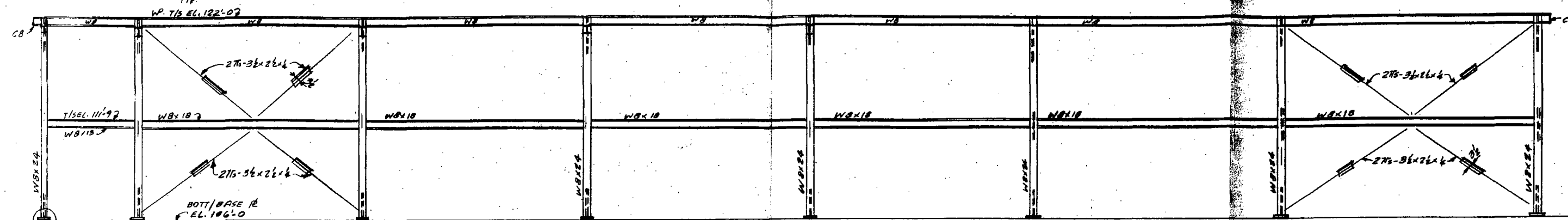
PROJECT NO. GW-5404  
SCALE AS NOTED

REV	DESCRIPTION	DATE	BY	CHK	APP
1	AS BUILT				
2	ELEVATIONS, SECTIONS & DIMENSIONS				

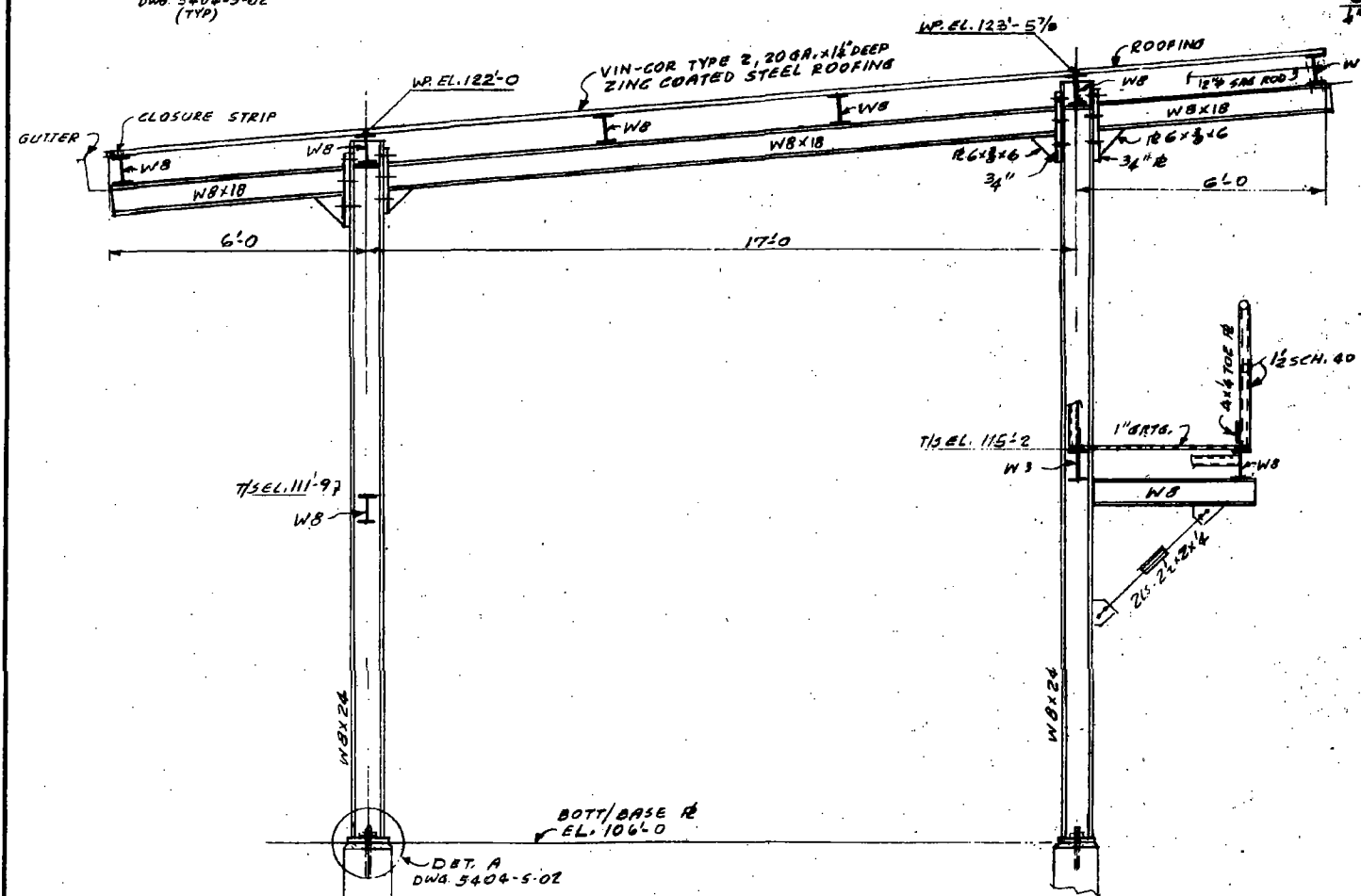




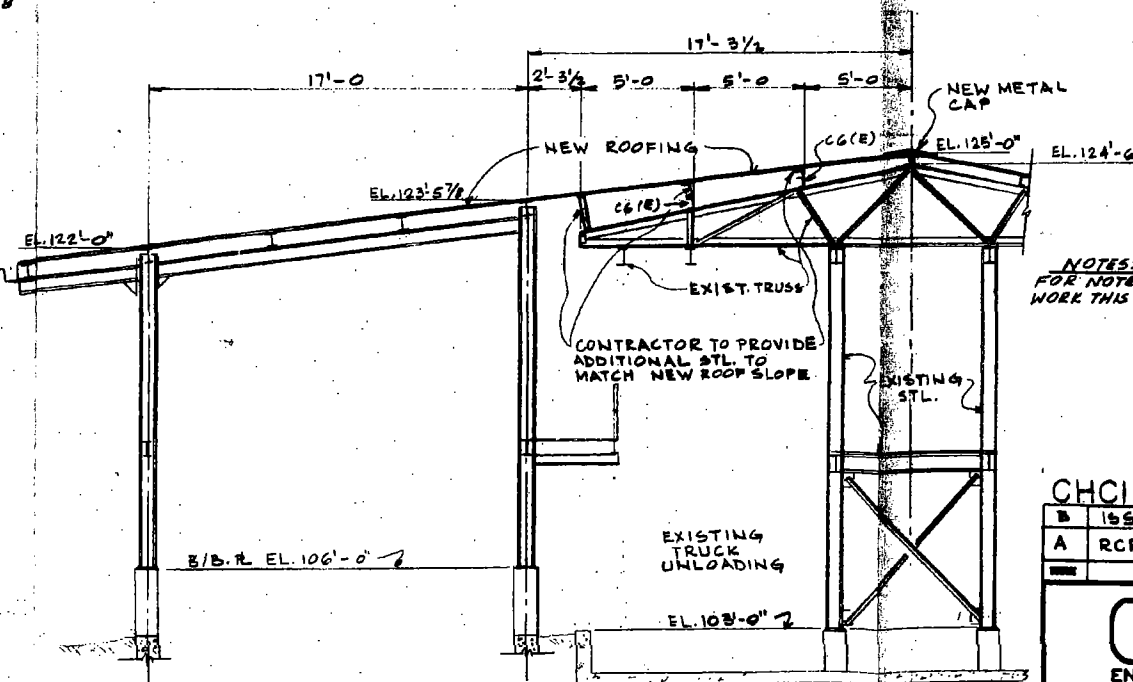
SECTION B-B  
1/4" = 1'-0" DWG. 5404-S-02



SECTION C-C  
1/4" = 1'-0" DWG. 5404-S-02



TYP. CROSS SECTION  
1/2" = 1'-0"



SECTION F-F  
SCALE 1/4" = 1'-0"  
FROM DWG. 5404-S-02

NOTES:  
FOR NOTES ON STRUCTURAL STEEL SEE SHT. -02  
WORK THIS DWG. WITH SHTS. -01 & -02

CHCI DWG. NO. 4217

B	ISSUED FOR PERMIT	CK		1-23-52
A	RCRA PART B MODIFICATIONS	CK		7-20-78

**Clean Harbors**  
ENVIRONMENTAL ENGINEERING, INC.

CLEAN HARBORS OF CHICAGO, INC.  
11800 S. STONY ISLAND AVENUE  
CHICAGO, ILLINOIS 60617  
SUPERSTRUCTURE FOR R.R. CAR  
UNLOADING AREA #13 - SECTIONS  
SHEET 3 OF 3



**HOYER-SCHLESINGER-TURNER, INC.**  
CONSULTING ENGINEERS  
300 WEST ADAMS STREET  
CHICAGO, ILLINOIS 60606  
PROJECT NO. 17521

2	AS BUILT	PJB	MV	7-3-95
1	ELEVATIONS CHANGED	PJB	MY	3-5-95
0	ISSUED FOR CONSTRUCTION ADDED SECTION F-F	CK	PJB	1-27-78
15/00	DESCRIPTION	DESIGNED	CHECKED	DATE

PROJECT NO. GW-5404  
SCALE AS NOTED

5404-S-03/2

non-responsive

non-responsive

non-responsive

- non-responsive

• non-responsive

• non-responsive

non-responsive

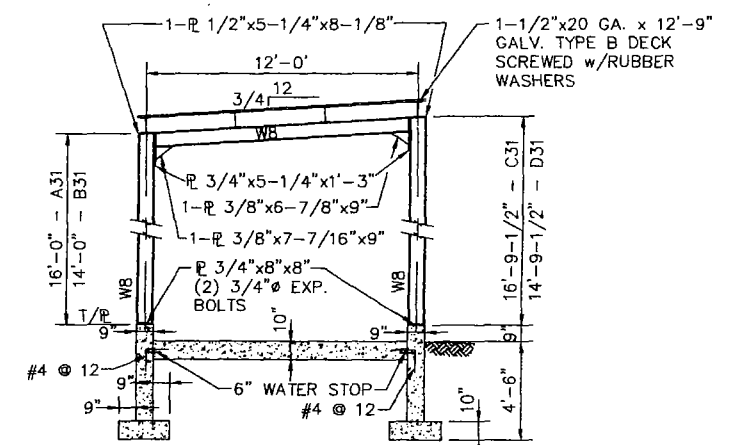
- non-responsive



CONTAINMENT:  
REQUIRED:  
 $46' \times 47' \times 6' / 12 = 1,081 \text{ FT.}^3 = 8,086 \text{ GALS.}$

AVAILABLE:  
FLOOR:  $46' \times 47' \times 9' / 12 \times 1/2 = 810.75$   
 $46' \times 47' \times 2' / 12 = 360.33$   
SUMP:  $2' \times 2' \times 4' = 16.00$   
1,187.08 1,187.  
SUBTRACT: RAMP#1:  $1/2 \times 8' \times 10' \times 11' / 12 = 37$   
TOTAL = 1,149.

- NOTES:**
1. ALL JOINTS BETWEEN FLOORS AND WALLS TO BE CONTINUOUSLY WATER STOPPED AND CAULKED.
  2. ALL CONCRETE TO HAVE 4,000 PSI COMPRESSIVE STRENGTH AT 28 DAYS.
  3. BUILDING FLOOR INCLUDING CONTAINMENT SURFACES TO BE COVERED WITH 1/4" THICK VINYL ESTER BASED FLOOR TOPPING SYSTEM PROTECTO-CRETE BY DUDICK INC. OR EQUAL.
  4. ALL STRUCTURAL STEEL TO RECEIVE ONE SHOP COAT OF RED OXIDE PRIMER.
  5. STEEL FABRICATOR TO VERIFY ANCHOR BOLT LOCATION FOR COLUMNS IN FIELD PRIOR STEEL FABRICATION.
  6. FLOOR SHALL BE COATED WITH 1/4" OF PROTECTO CRETE 900 & DIKE WALLS SHALL BE COATED WITH PROTECTO COAT 900 AS MANUFACTURED BY DUDICK INC.
  7. THIS AREA WILL ALSO BE USED FOR THE MANAGEMENT AND STORAGE OF COMPRESSED GAS WASTE.



**ELEVATION C-C**  
SCALE: 1/4"=1'-0"

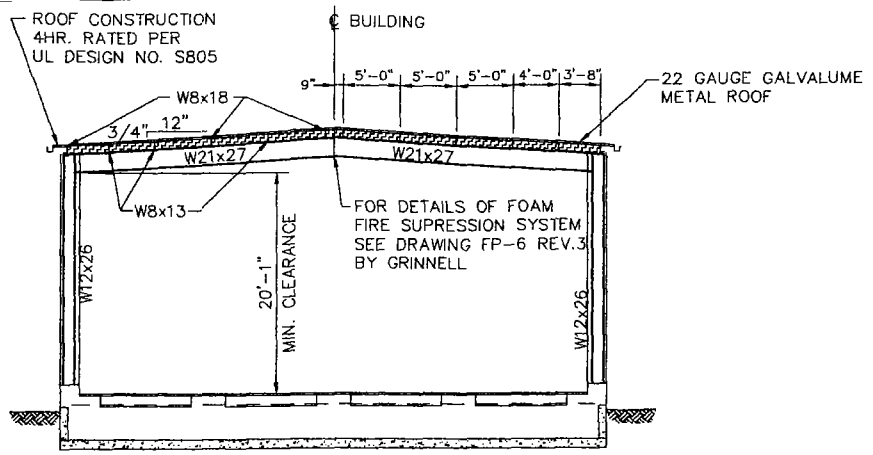
CHSI DWG. NO. 4245

NO.	DESCRIPTION	CHSI	CHSD	APPL.	DATE
3	HAND DWG. TO CADD DWG. ADDED FLOOR SLOPE & ELEVATIONS	K.M.C.	A.M.L.	A.M.L.	1/30/0
2	ADDED NOTE 7	K.M.C.			8/28/9
1	AS BUILT	M.V.P.	P.J.B.		6/30/9
0	ISSUED FOR CONSTRUCTION ADDED SECTION C-C, CHANGED STEEL SIZES	M.V.P.	P.J.B.		1/27/9
C	ISSUED FOR PERMIT-BLDG	M.V.P.	P.J.B.		1/24/9
B	ISSUED FOR PERMIT	P.T.W.	P.B.		8/23/9
A	RCRA PART B MODIFICATION	P.T.W.	P.T.W.	P.T.W.	7/20/9

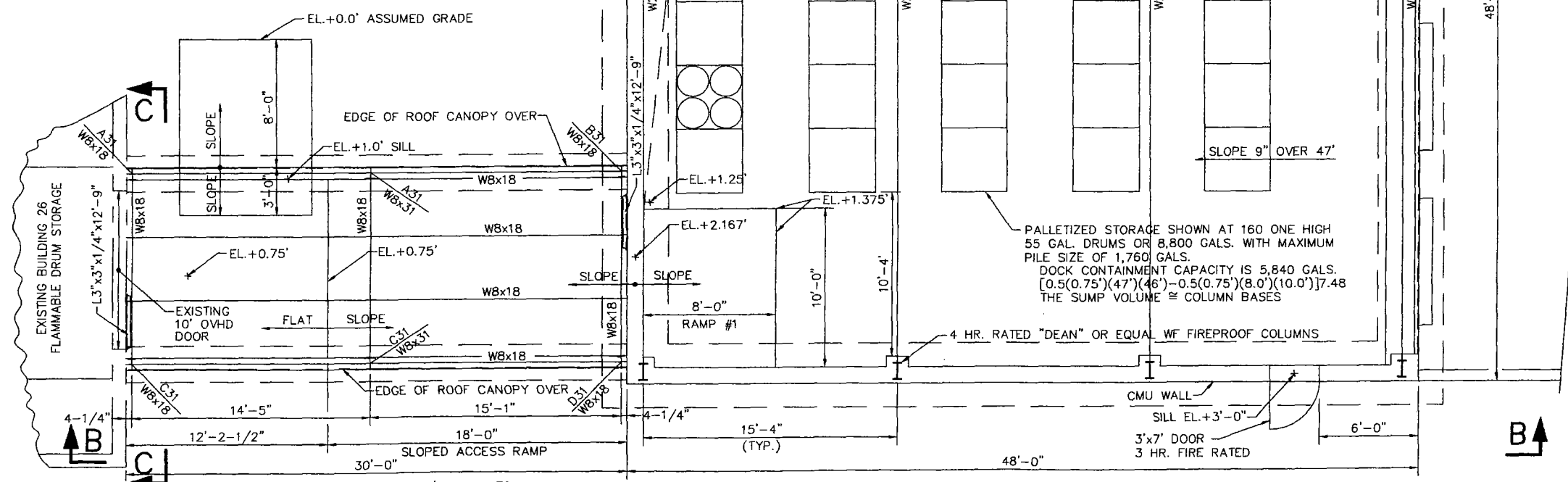
**Clean Harbors**  
ENVIRONMENTAL SERVICES, INC.  
1501 Washington Street  
Braintree, Massachusetts 02195  
Telephone (781) 843-1800

**CLEAN HARBORS SERVICES, INC.**  
11800 S. STONY ISLAND AVENUE  
CHICAGO, ILLINOIS 60617  
**UNIT #61**  
**CONTAINER HANDLING DOCK**

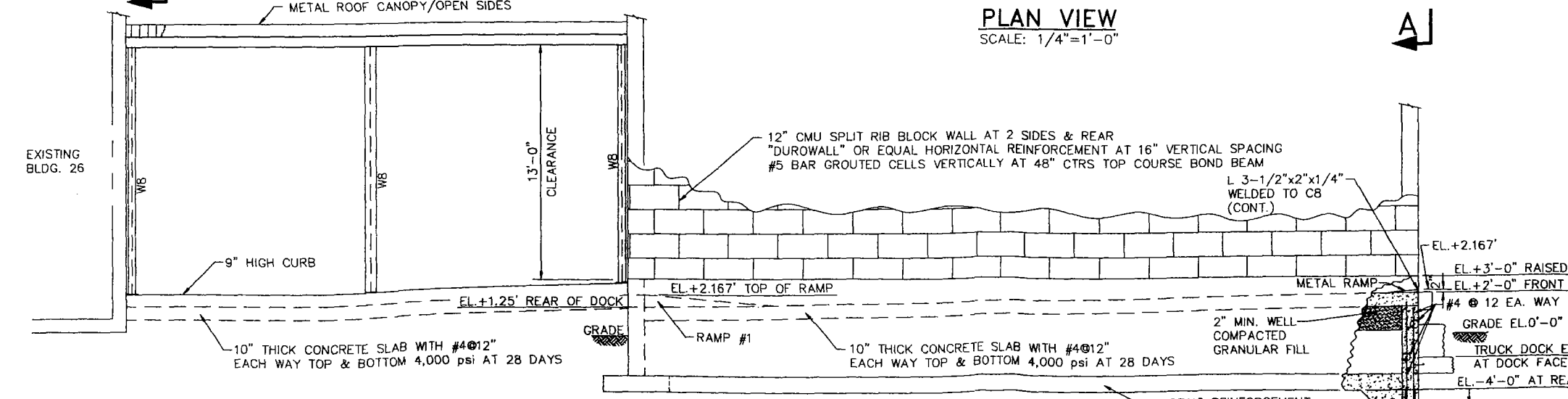
PROJECT NO. CH114630 DRAWING NO. 2916-S-12  
SCALE AS NOTED



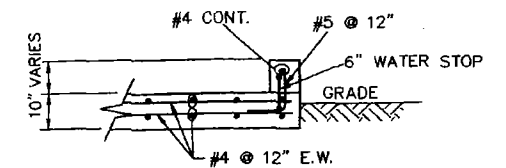
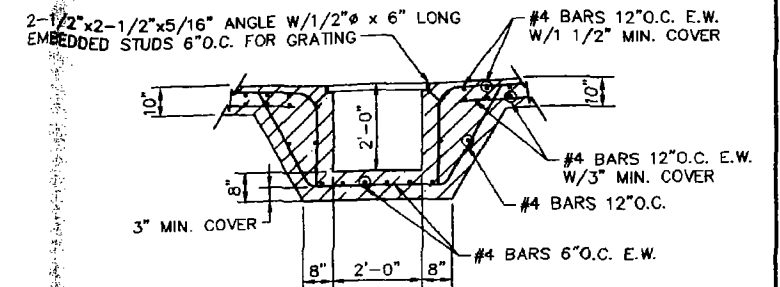
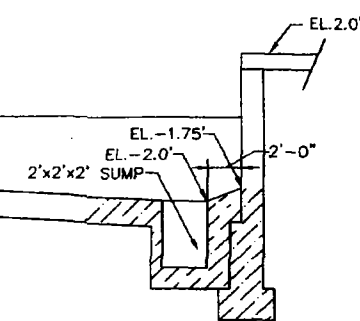
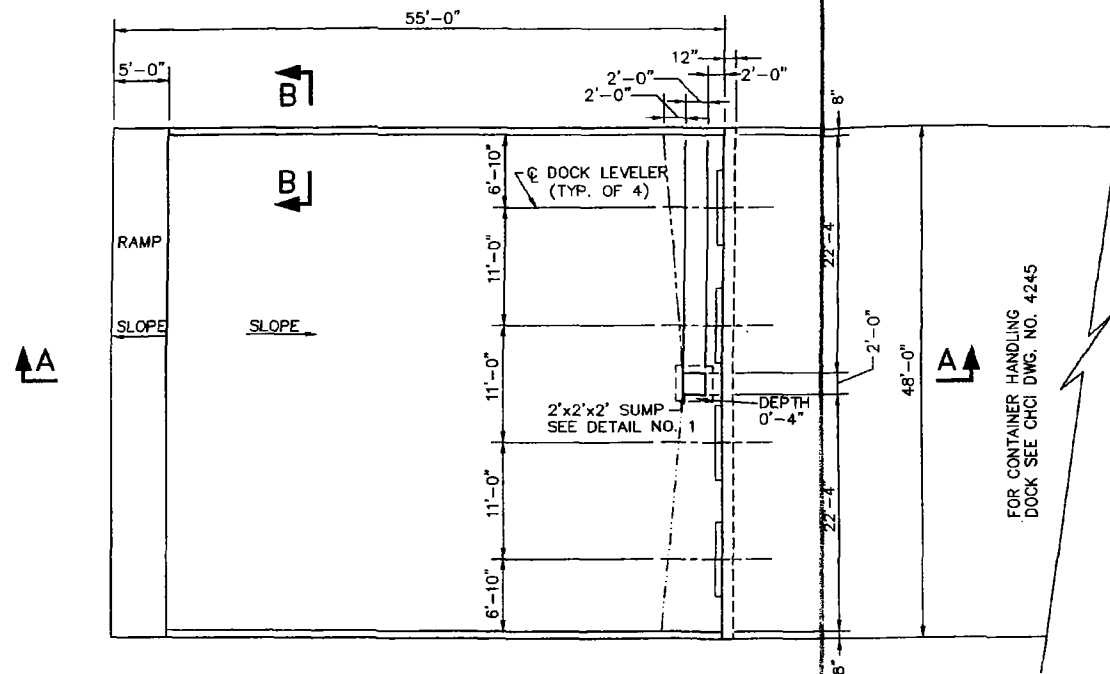
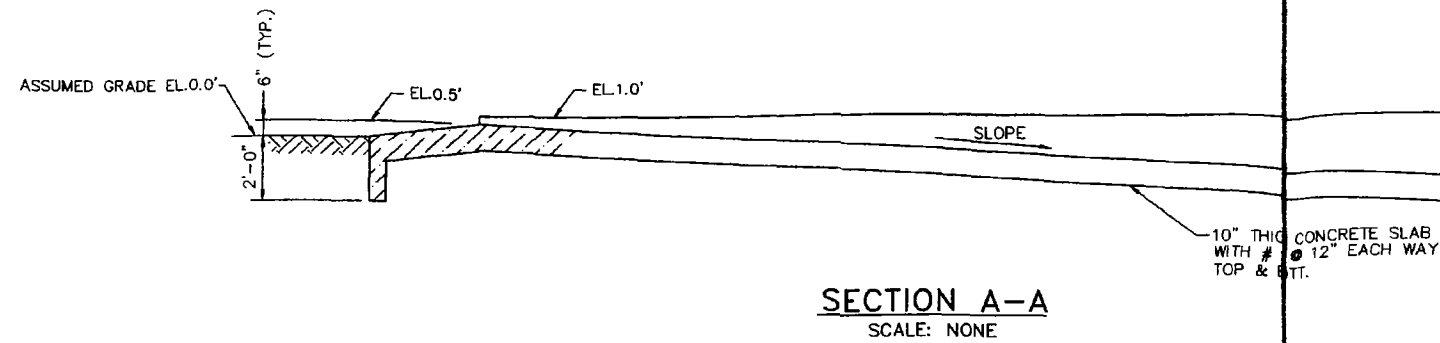
**ELEVATION A-A**  
SCALE: 1/8"=1'-0"



**PLAN VIEW**  
SCALE: 1/4"=1'-0"



**ELEVATION B-B**  
SCALE: 1/4"=1'-0"



#### CONTAINMENT CAPACITY CALCULATIONS

##### REQUIRED CAPACITY

- (A) BOX TRUCK- CONTAINING 80 DRUMS @ 55 GALS. EACH  
= 4,400 GALS.  
MAXIMUM CAPACITY OF 7,200 GALS.
- (B) PRECIPITATION ALLOWANCE FOR MAX. RAIN FALL OF 4.7"  
(REF. U.S. DEPT OF COMMERCE, TECHNICAL PAPER #40)  
= 50'x48'x(4.7/12)'x7.481  
= 7,032 GALS.
- TOTAL REQUIRED CAPACITY= 14,232 GALS.

##### AVAILABLE CAPACITY

- (A) VOLUME OF PAD NORTH OF SUMP  
= 1/2x48'x46.67'x2.5'x7.481  
= 20,948 GALS
- (B) VOLUME OF PAD SOUTH OF SUMP  
= 2'x46.67'x1/2(2.5 + 2.25)'x7.481  
= 1,658 GALS
- (C) SUMP VOLUME= 2'x2'x2'x7.481= 59 GALS.
- TOTAL AVAILABLE CAPACITY= 22,665 GALS.

#### NOTES:

- ALL CONCRETE AREAS TO BE COVERED WITH BURLAP AND KEPT CONTINUOUSLY MOIST FOR A MINIMUM PERIOD OF THREE DAYS IMMEDIATELY AFTER PLACEMENT AND FINISHING. CURING COMPOUNDS ARE NOT TO BE USED. CONCRETE TO BE FINISHED SUCH THAT EXCESS MORTAR IS NOT BROUGHT TO THE SURFACE. NO ADDED CEMENT, WATER IS TO BE USED DURING FINISHING.
- TOP OF ALL EXPOSED CONCRETE WALL/CURB POURS TO BE FINISHED PERFECTLY LEVEL FOR PROPER ARCHITECTURAL APPEARANCE. CHAMFER ON ALL RE-ENTRANT CORNERS IS REQUIRED.
- SUMPS TO BE TESTED BY CONTRACTOR WITH WATER AT FULL HEIGHT FOR A PERIOD OF 24 HOURS AND NO LEAKAGE ALLOWED.
- ALL CONCRETE MIXING AND PLACING SHALL CONFORM TO THE REQUIREMENT OF ACI 301-89 "SPECIFICATIONS FOR STRUCTURAL CONCRETE FOR BUILDINGS" AND ACI 318-89 "BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE".
- ALL CONCRETE FOR CONTAINMENT AREAS INCLUDING CONCRETE FOR SLABS AND DIKES SHALL BE IMPERMEABLE CONCRETE WITH ABSOLUTE MINIMUM CRACKING DUE TO SHINKAGE, THE MINIMUM COMPRESSIVE STRENGTH AT 28 DAYS TO BE  $F_c=4000$  psi.
- ALL CONCRETE FOR CONTAINMENT AREAS SHALL BE COATED WITH 30 MILS OF PROTECTO-COAT SYSTEM AS MANUFACTURED BY DUDUCK INC.
- DESIGN LOAD H20-S16-44.
- THIS AREA WILL ALSO BE USED FOR THE MANAGEMENT AND STORAGE OF COMPRESSED GAS WASTES.

#### CHCI DWG. NO. 4246

ISSUE	DESCRIPTION	DRWN.	CHGD.	APPR.	DATE
1	SEE REVISION NOTE 1	K.M.C.			7/20/94
0	AS BUILT	B.H.P.	B.H.P.		8/30/95
D	SEE REVISION NOTE D	K.M.C.	B.H.P.	B.H.P.	7/28/94
C	SEE REVISION NOTE C	K.M.C.	A.M.L.	A.M.L.	9/1/94
B	ISSUED FOR PERMIT	P.B.			8/23/94
A	RCRA PART B MODIFICATION	K.M.C.	B.H.P.	B.H.P.	7/20/94

**CleanHarbors**  
ENVIRONMENTAL SERVICES, INC.

325 Wood Road  
Quincy, Massachusetts 02264  
Telephone (617) 849-1200/1800

CLEAN HARBORS OF CHICAGO, INC.  
11800 S. STONY ISLAND AVENUE  
CHICAGO, ILLINOIS 60617

TRUCK PAD - UNIT #62

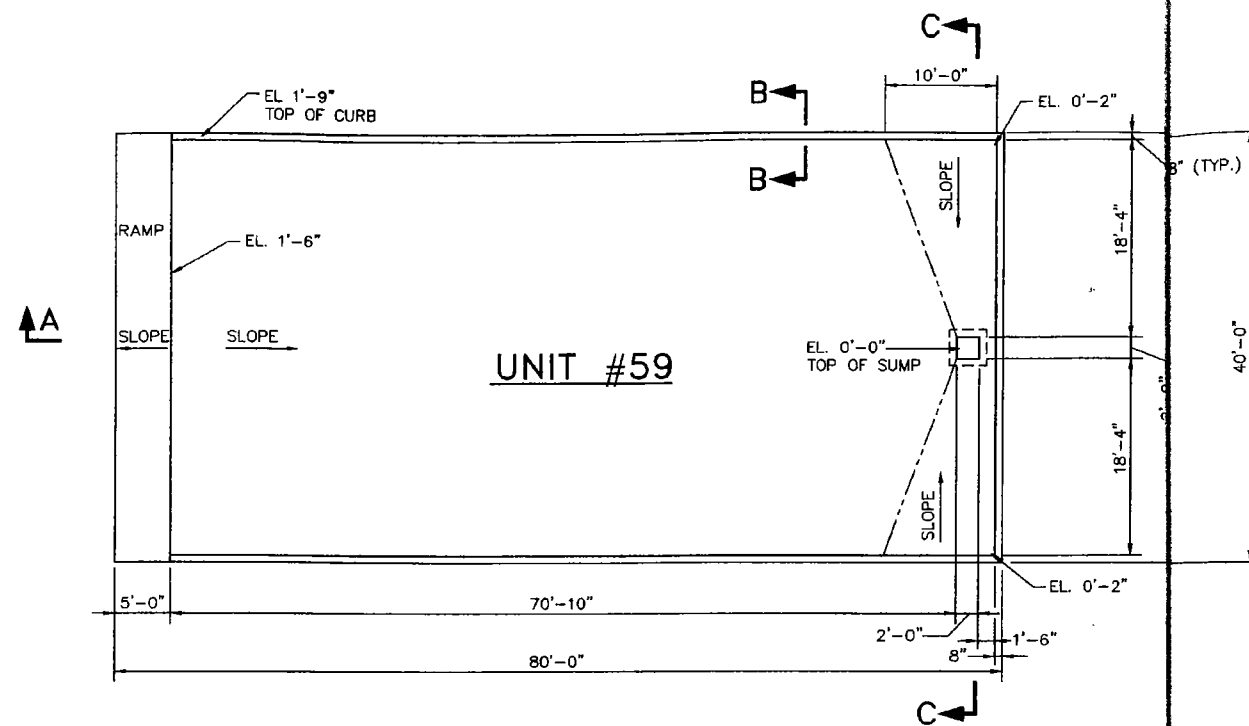
REV. #	DESCRIPTION
1	ADDED NOTE #6.
0	REMOVED SWALE & SECTION C-G. ADDED WATER STOP IN SECTION B-B. ADDED NOTE #5 & #7
D	REVISED REQUIRED CONTAINMENT CAPACITY CALCULATIONS
C	ADDED SWALE. REVISED SECTION A-A & CONTAINMENT CAPACITY CALCULATIONS.

PROJECT NO. GW-5404

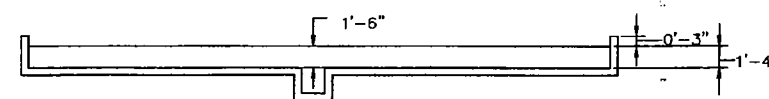
DRAWING NO.

2916-S-13

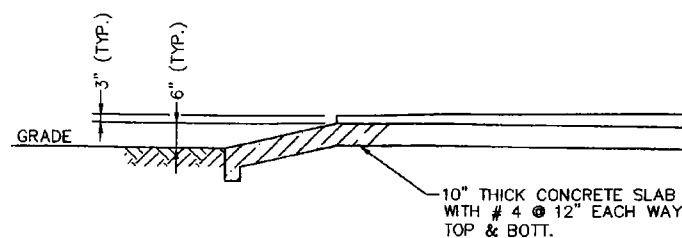
SCALE AS NOTED



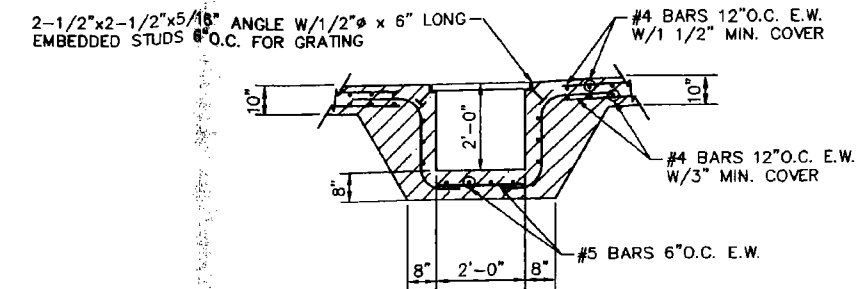
PLAN  
SCALE: 1/8" = 1'-0"



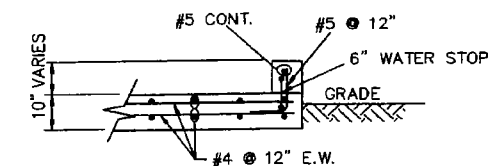
SECTION C-C  
SCALE: NONE



SECTION A-A  
SCALE: NONE



DETAIL NO. 1  
SCALE: 1/2" = 1'-0"



SECTION B-B  
SCALE: 1/2" = 1'-0"

### NOTES:

1. ALL CONCRETE AREAS TO BE COVERED WITH BURLAP AND KEPT CONTINUOUSLY MOIST FOR A MINIMUM PERIOD OF THREE DAYS IMMEDIATELY AFTER PLACEMENT AND FINISHING. CURING COMPOUNDS ARE NOT TO BE USED. CONCRETE TO BE FINISHED SUCH THAT EXCESS MORTAR IS NOT BROUGHT TO THE SURFACE. NO ADDED CEMENT, WATER IS TO BE USED DURING FINISHING.
2. TOP OF ALL EXPOSED CONCRETE WALL/CURB POURS TO BE FINISHED PERFECTLY LEVEL FOR PROPER ARCHITECTURAL APPEARANCE. CHAMFER ON ALL RE-ENTRANT CORNERS IS REQUIRED.
3. SUMPS TO BE TESTED BY CONTRACTOR WITH WATER AT FULL HEIGHT FOR A PERIOD OF 24 HOURS AND NO LEAKAGE ALLOWED.
4. ALL CONCRETE MIXING AND PLACING SHALL CONFORM TO THE REQUIREMENT OF ACI 301-89 "SPECIFICATIONS FOR STRUCTURAL CONCRETE FOR BUILDINGS" AND ACI 318-89 "BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE".
5. ALL CONCRETE FOR CONTAINMENT AREAS INCLUDING CONCRETE FOR SLABS AND DIKS SHALL BE IMPERMEABLE CONCRETE WITH ABSOLUTE MINIMUM CRACKING DUE TO SHINKAGE, THE MINIMUM COMPRESSIVE STRENGTH AT 28 DAYS TO BE  $F'_c=4000$  psi.
6. ALL CONCRETE FOR CONTAINMENT AREAS SHALL BE COATED WITH 30 MILS OF PROTECTO-COAT SYSTEM AS MANUFACTURED BY DUDICK INC.
7. DESIGN LOAD H20-S16-44.
8. THIS AREA WILL ALSO BE USED FOR THE MANAGEMENT AND STORAGE OF COMPRESSED GAS WASTES.

### CONTAINMENT CALCULATIONS

#### CONTAINMENT CAPACITY REQUIRED

- (A) MAXIMUM VOLUME OF TANKER TRUCK = 7,200 GALS.  
(B) VOLUME REQUIRED TO CONTAIN MAXIMUM PRECIPITATION FROM 24HR. 25 YR. STORM EVENT (4.7")  
=  $75 \times 40 \times 4.7 / 12 \times 7.481$   
= 8,790 GALS.  
TOTAL CAPACITY REQUIRED 15,990 GALS.  
REF.: U.S. DEPARTMENT OF COMMERCE TECHNICAL PAPER #40  
RAINFALL FREQUENCY ATLAS OF U.S.A.

#### AVAILABLE CONTAINMENT CAPACITY

- (A) VOLUME FOR AREA ABCE WHERE  
 $BB' = EE' = 1'-7"$  AND  $AA' = FF' = 0'-3"$   
=  $40' - (1'-4") \times (80' - (10' - 8")) \times 1/2 \times (1'-4") \times 7.481$   
=  $38.67 \times 69.33 \times 0.665 \times 7.481$   
= 13,337.5 GALS.  
(B) VOLUME OF AREA BCDE-B'C'D'E'  
ASSUME AREA BCDE WITH A UNIFORM DEPTH OF 1'-4"  
(MINIMUM DEPTH, DEPTH VARIES FROM 1'-4" TO 1'-6")  
=  $38.67 \times 10' \times 1.33 \times 7.481$   
= 3,847.5 GALS.  
TOTAL AVAILABLE CONTAINMENT CAPACITY = 17,185 GALS.

1	ADDED NOTE #8.
0	REVISED REQD. CONTAINMENT CAPACITY, ADDED NOTE #6 & #7, ADDED WATER STOP IN SECTION B-B.
REV. #	DESCRIPTION

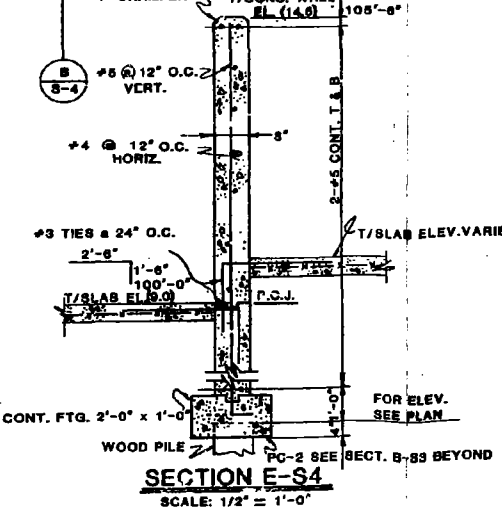
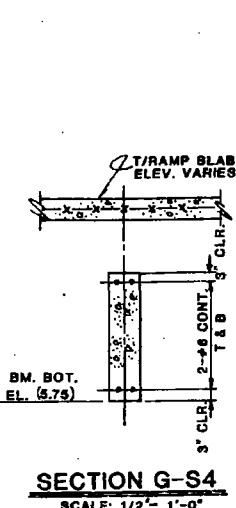
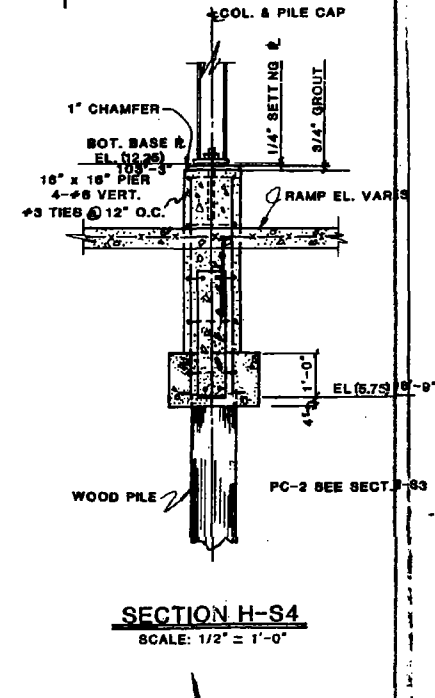
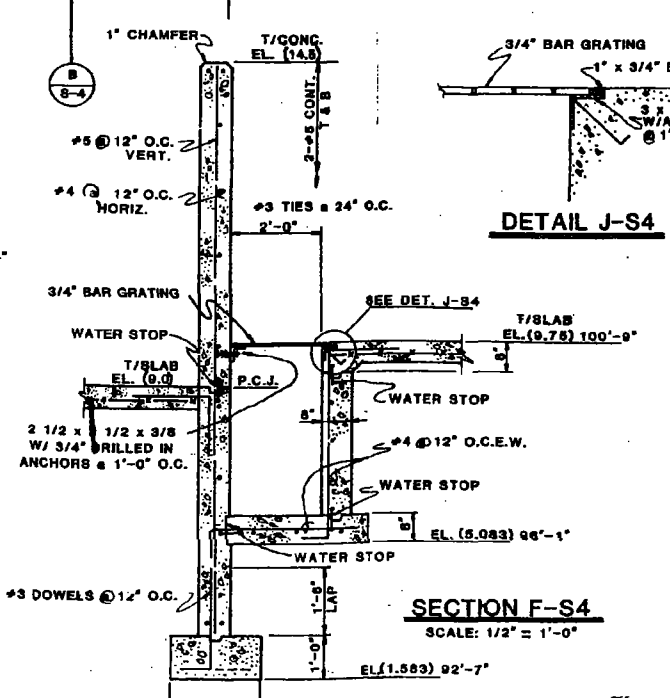
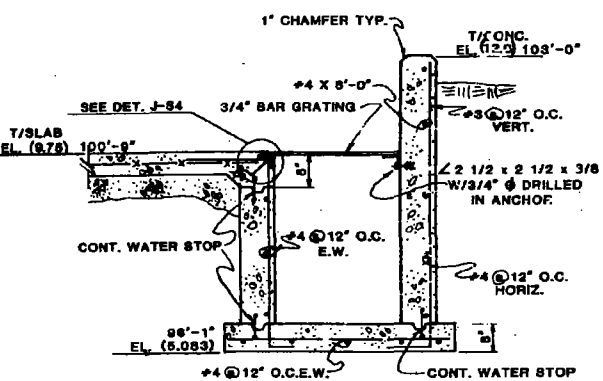
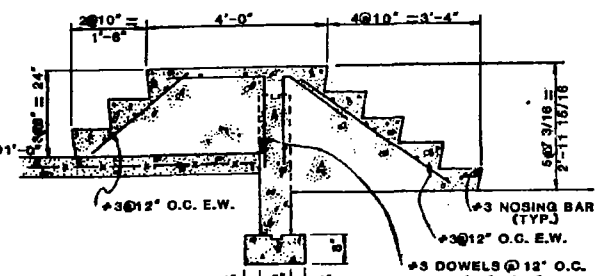
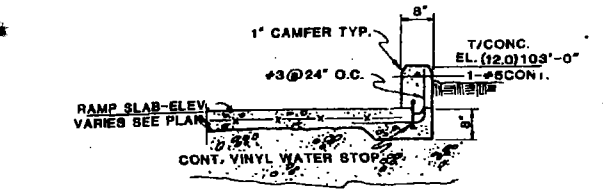
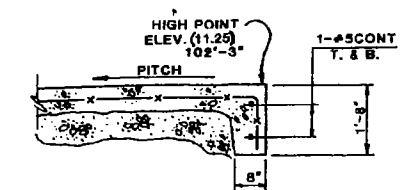
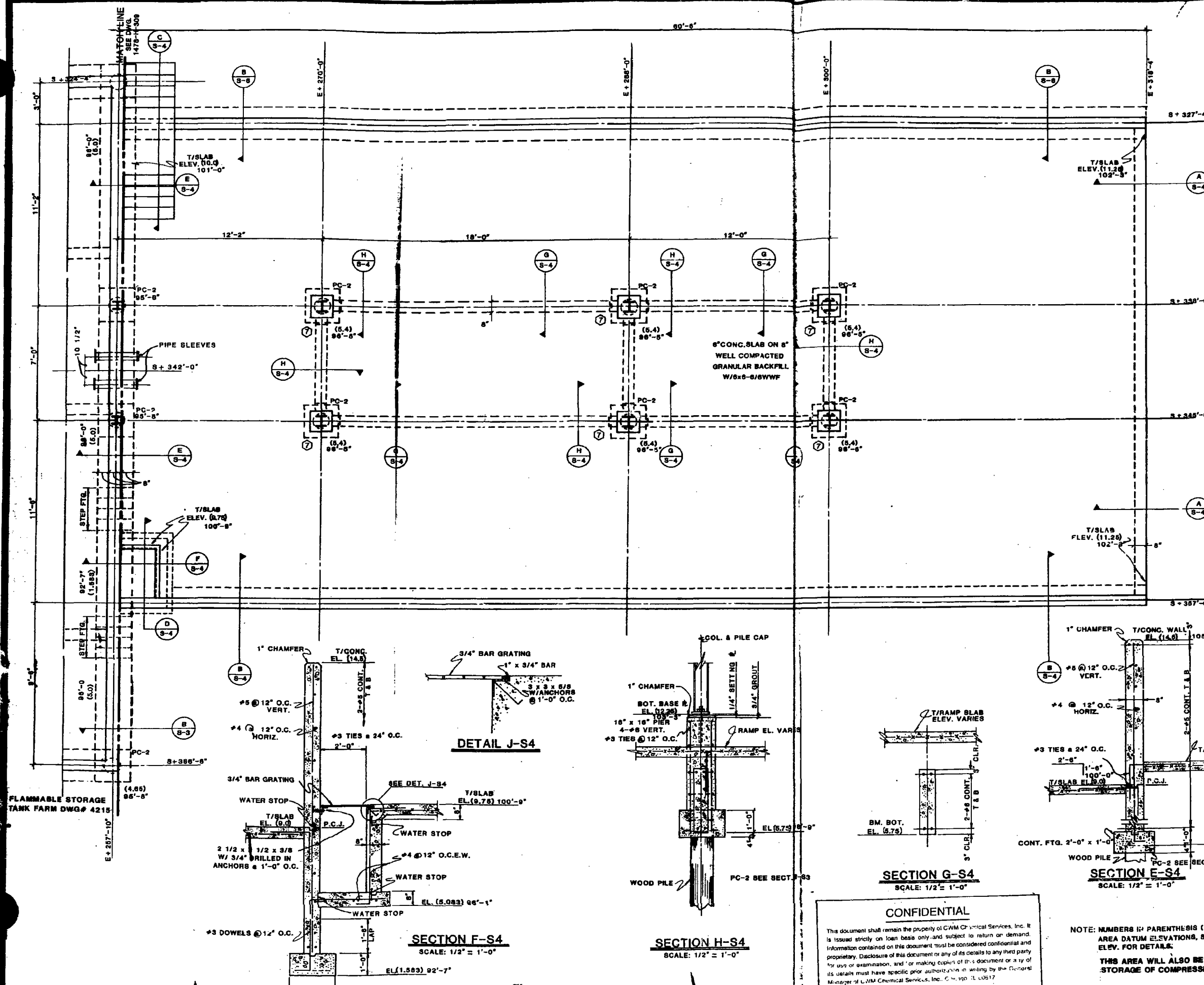
CHCI DWG. NO. 4247

1	SEE REVISION NOTE 1	K.M.C.	B.H.P.	B.H.P.	6/28/94
0	AS BUILT	B.H.P.	B.H.P.		6/28/94
B	RCRA PART B MODIFICATION	K.M.C.	A.M.L.	A.M.L.	9/1/94
A	RCRA PART B MODIFICATION	K.M.C.	B.H.P.	B.H.P.	7/20/94
ISSUE	DESCRIPTION	ORIG.	CHG.	APPR.	DATE

**CleanHarbors**  
ENVIRONMENTAL SERVICES, INC.  
325 Wood Road  
Brentree, Massachusetts 02184  
Telephone (617) 849-1200/1800

TITLE  
CLEAN HARBORS OF CHICAGO, INC.  
11800 S. STONY ISLAND AVENUE  
CHICAGO, ILLINOIS 60617  
TRUCK STAGING AREA DETAILS  
UNIT #59

PROJECT NO. GW-5404  
SCALE AS NOTED  
DRAWING NO. 2916-S-14



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NOTE: NUMBERS IN PARENTHESES ( ) INDICATES BOT. OF FOOTING AT CHICAGO AREA DATUM ELEVATIONS, SEE APPROPRIATE SECTION OR ELEV. FOR DETAILS.

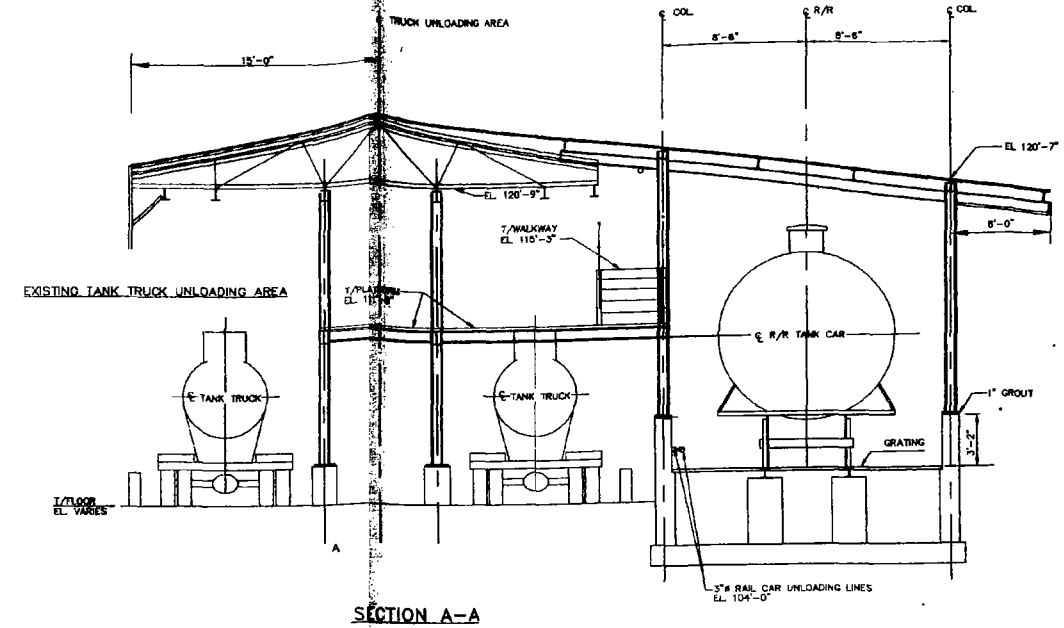
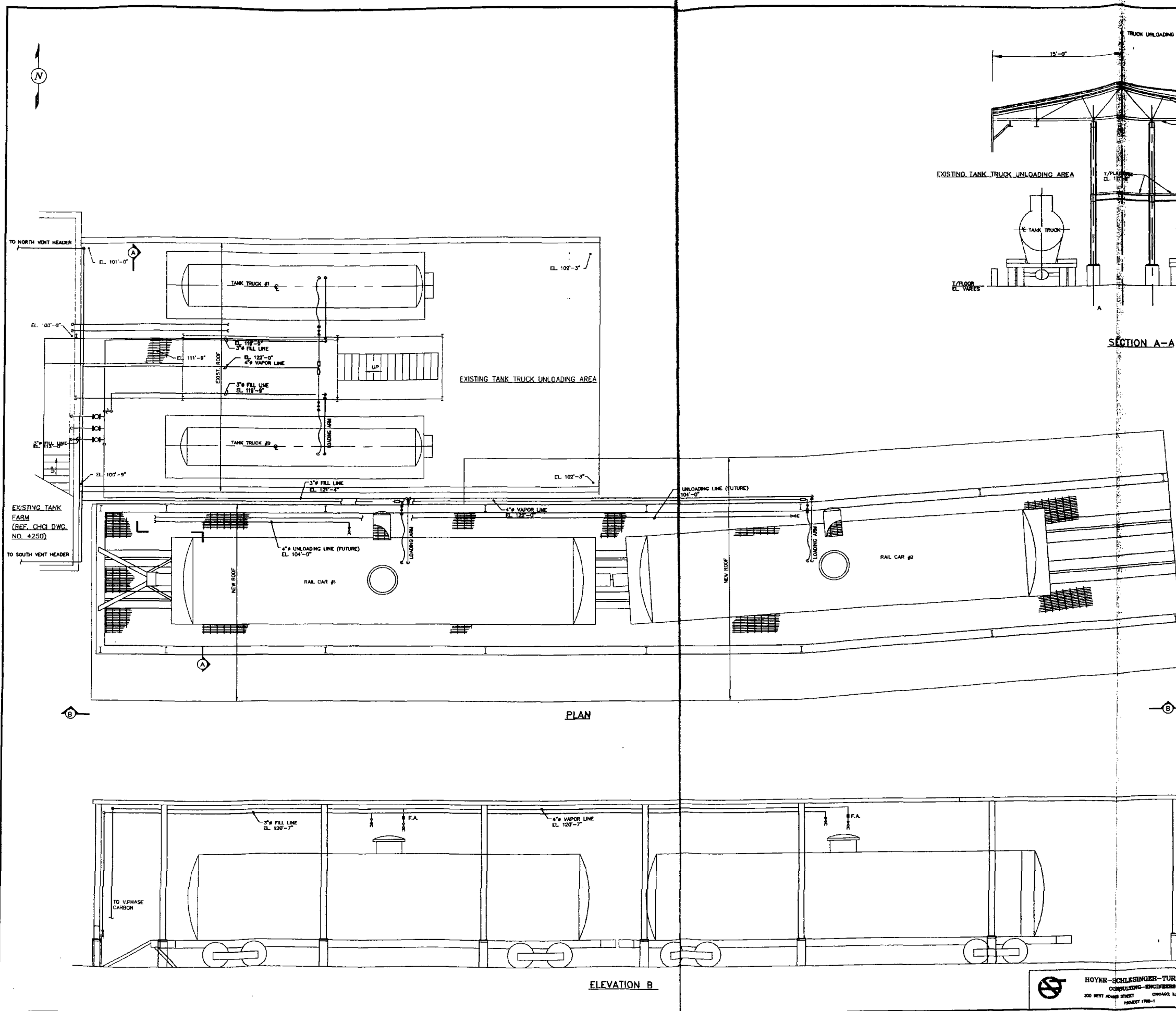
THIS AREA WILL ALSO BE USED FOR THE MANAGEMENT AND STORAGE OF COMPRESSED GAS WASTES.

NOTE: ELEV. 100'-0" IS EQUIVALENT TO 9.0 CHICAGO AREA DATUM LINE

CHCI DWG. NO. 4248

WAS 5/24/00 1478-H-310

DATE	BY	CHK	APP	DESCRIPTION
12/1/99	WAS	WAS	WAS	TRUCK UNLOADING PLATFORM
12/1/99	WAS	WAS	WAS	CHICAGO INCINERATOR
12/1/99	WAS	WAS	WAS	CONSULTING ENGINEERS
12/1/99	WAS	WAS	WAS	STRAUBING, RUBIN & KENES, INC.
12/1/99	WAS	WAS	WAS	11700 SO. STONY ISLAND AVE.
12/1/99	WAS	WAS	WAS	CHICAGO
12/1/99	WAS	WAS	WAS	ILLINOIS
12/1/99	WAS	WAS	WAS	ILLINOIS
12/1/99	WAS	WAS	WAS	ORLAND PARK



- NOTES:
1. PIPING SHOWN IS SCHEMATIC
  2. PIPING SHALL BE DESIGNED AND INSTALLED PER ASME/ANSI B31.3
  3. PIPING SYSTEM SHALL MEET SECONDARY CONTAINMENT REQUIREMENTS PER 40 CFR 264.193(f)
  4. THE ALL UNLOADING STATIONS TO HAVE GROUNDING CABLE WITH INDICATOR LIGHT TO PROVIDE VISUAL INDICATION OF PROPER GROUNDING.

RCRA PART B MODIFICATIONS  
 REVISION NOTE B:  
 ADDED TANK TRUCK AND RAIL CAR UNLOADING LINES. REVISED PLAN AND SECTION VIEWS TO SHOWN LIMITS OF EXISTING TANK TRUCK UNLOADING AREA.

CHCI DWG. NO. 4251 7/12/95

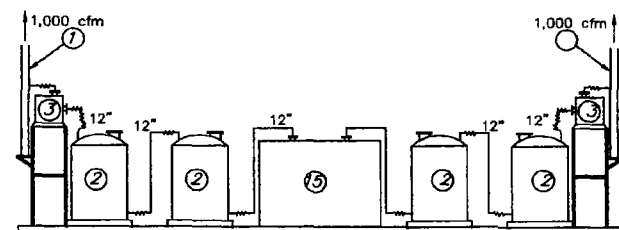
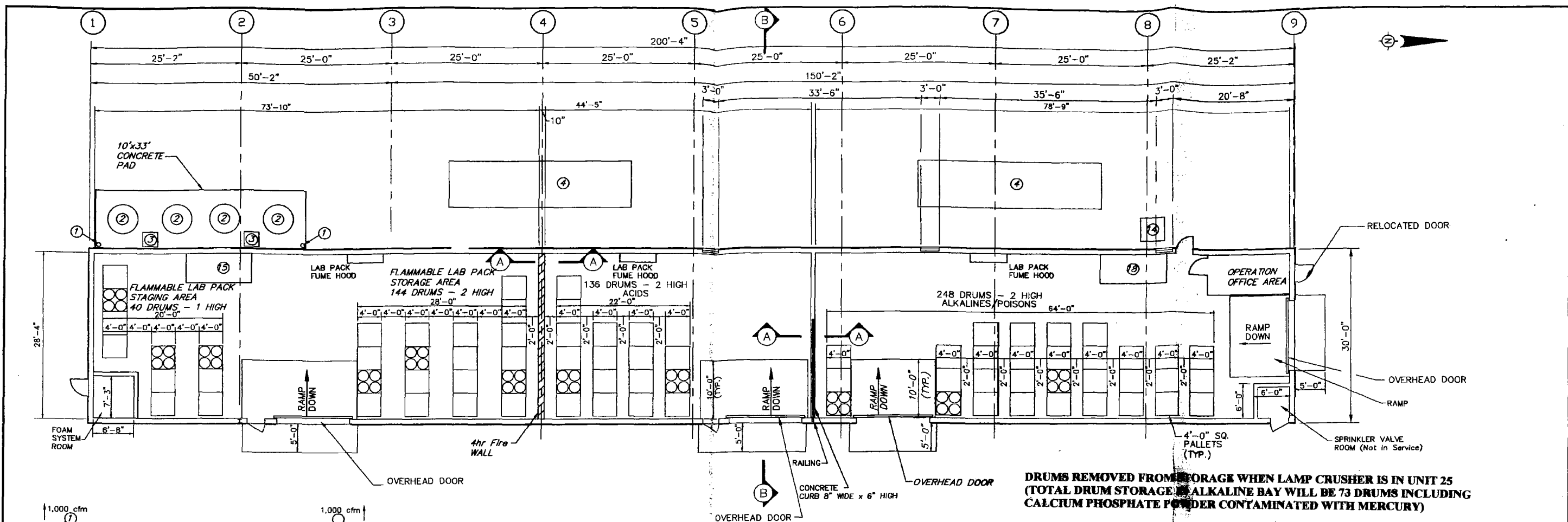
0	AS BUILT	B.H.P.	B.H.P.		7/12/95
B	SEE REVISION NOTE B				
A	RCRA PART B MODIFICATIONS	B.H.P.	A.M.L.	A.M.L.	9/1/94
ISSUE	DESCRIPTION	ORIGIN	CHD.	APPR.	DATE

**CleanHarbors**  
 ENVIRONMENTAL SERVICES, INC.  
 325 Wood Road  
 Braintree, Massachusetts 02184  
 Telephone (617) 849-1200/1800

TITLE  
**CLEAN HARBORS OF CHICAGO, INC.**  
 11800 S. STONY ISLAND AVENUE  
 CHICAGO, ILLINOIS 60617  
**RAIL CAR & TRUCK UNLOADING AREA  
 UNIT #13 AND #15**

PROJECT NO. GW-5404 DRAWING NO. 2916-M-21  
 SCALE 3/16" = 1'-0"

**HOYER-SCHLESINGER-TURNER, INC.**  
 CONSULTING ENGINEERS  
 300 WEST ADAMS STREET CHICAGO, ILLINOIS 60606  
 PROJECT 1788-1



AREA DESCRIPTION	REQ'D. CONTAINMENT PER RCRA			RECTANGULAR VOLUME OF AREA			VOLUME OCCUPIED BY RAMP				VOL. OCCUPIED BY INSIDE ROOMS		TOTAL CAPACITY (GALS.) Vt=A-RA-IR
	D	V	R	W	L	H	A	RW	RL	RH	RA	IR	
ACIDS	136	7,480	748	44.00	28.33	0.5	4,662 GAL.	18.16	10	0.5	340 GAL.	NONE	4,322
ALKALINE/POISONS	248	13,640	1,364	78.75	28.33	0.5	8,343 GAL.	(1) 14	10	0.5	262 GAL.	(1) (16X7X0.5)7.48 = 420 GAL. (2) (6X6X0.5)7.48 = 135 GAL.	7,189
FLAMMABLES STAGING AREA	40	2,200	220	74.0	28.33	0.5	7,840 GAL.	19.08	10	0.5	357 GAL.	(6.69X7.25X0.5)7.48 = 181 GAL.	7,302
FLAMMABLES STORAGE AREA	144	7,920	792										
TOTAL FLAMMABLES	184	10,120	1,012										

ITEM NO.		EQUIPMENT	
QTY.		DESCRIPTION	
1	2	12" STACK	
2	4	1,800 lb. CARBON BED ENVROTROL MODEL VPM-3000 OR EQUAL	
3	2	1,000 cfm EXHAUST BLOWER	
4	2	SPENT ABSORBENT STORAGE ROLL-OFF	
14	1	DUST COLLECTOR WITH 2,000 scfm BLOWER	
15	1	LAB PACK FLAMMABLE POUR-OFF HOOD #1	
16	1	LAB PACK POWDERED/SOLIDS POUR-OFF HOOD #4	

#### NOTES:

- ALL EXISTING CONCRETE CONTAINMENT FLOORS AND RAMPS HORIZONTAL SURFACES ARE COATED WITH PROTECTO-CRETE 900 SYSTEM 1/4" THICK, AS MANUFACTURED BY DUDICK INC. ALL EXISTING CONCRETE CONTAINMENT CURBS VERTICAL AND HORIZONTAL SURFACES ARE COATED WITH PROTECTO-COAT 900 SYSTEM, 30 MILS THICK AS MANUFACTURED BY DUDICK INC. OR EQUAL.
- NEW CONCRETE RAMP IN ALKALINE STORAGE AREA SHALL BE COATED WITH PROTECTO-CRETE 900 SYSTEM 1/4" THICK, AS MANUFACTURED BY DUDICK INC. OR EQUAL.
- THIS AREA WILL ALSO BE USED FOR THE MANAGEMENT, STORAGE AND TREATMENT OF COMPRESSED GAS WASTES.
- IN FLAMMABLE STORAGE AREA LAB PACKS WILL BE STORED TWO HIGH. LIQUID FLAMMABLE DRUMS WILL ONLY BE STORED ONE HIGH.

#### CHSI DWG. NO. 4282

C	SEE REVISION NOTE C	K.M.C.	J.L.	J.L.	4/15/03
B	AS BUILT	AAA			3/8/01
A	RCRA PART B MODIFICATION	K.M.C.	A.M.L.	A.M.L.	8/11/99
ISSUE	DESCRIPTION	DRAWN	CHECKED	APPROVED	DATE

**CleanHarbors**  
ENVIRONMENTAL SERVICES, INC.  
1501 Washington Street  
Braintree, Massachusetts 02185  
Telephone (781) 849-1800

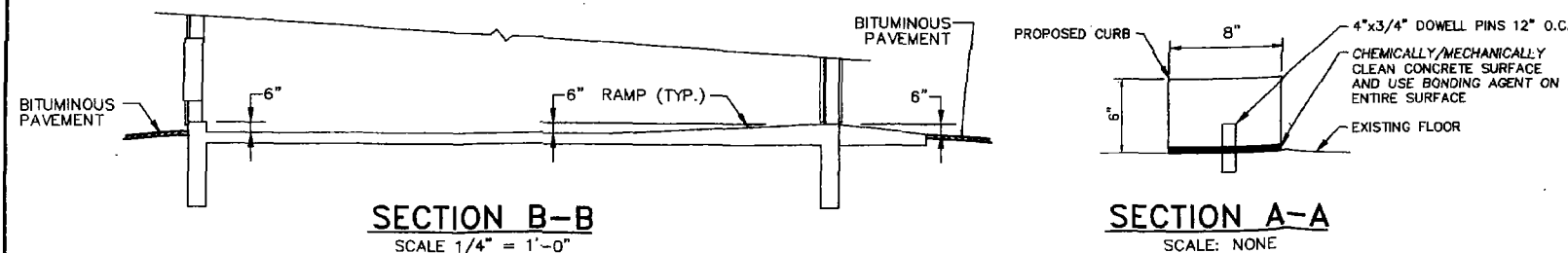
**CLEAN HARBORS SERVICES, INC.**  
11800 S. STONY ISLAND AVENUE  
CHICAGO, ILLINOIS 60617

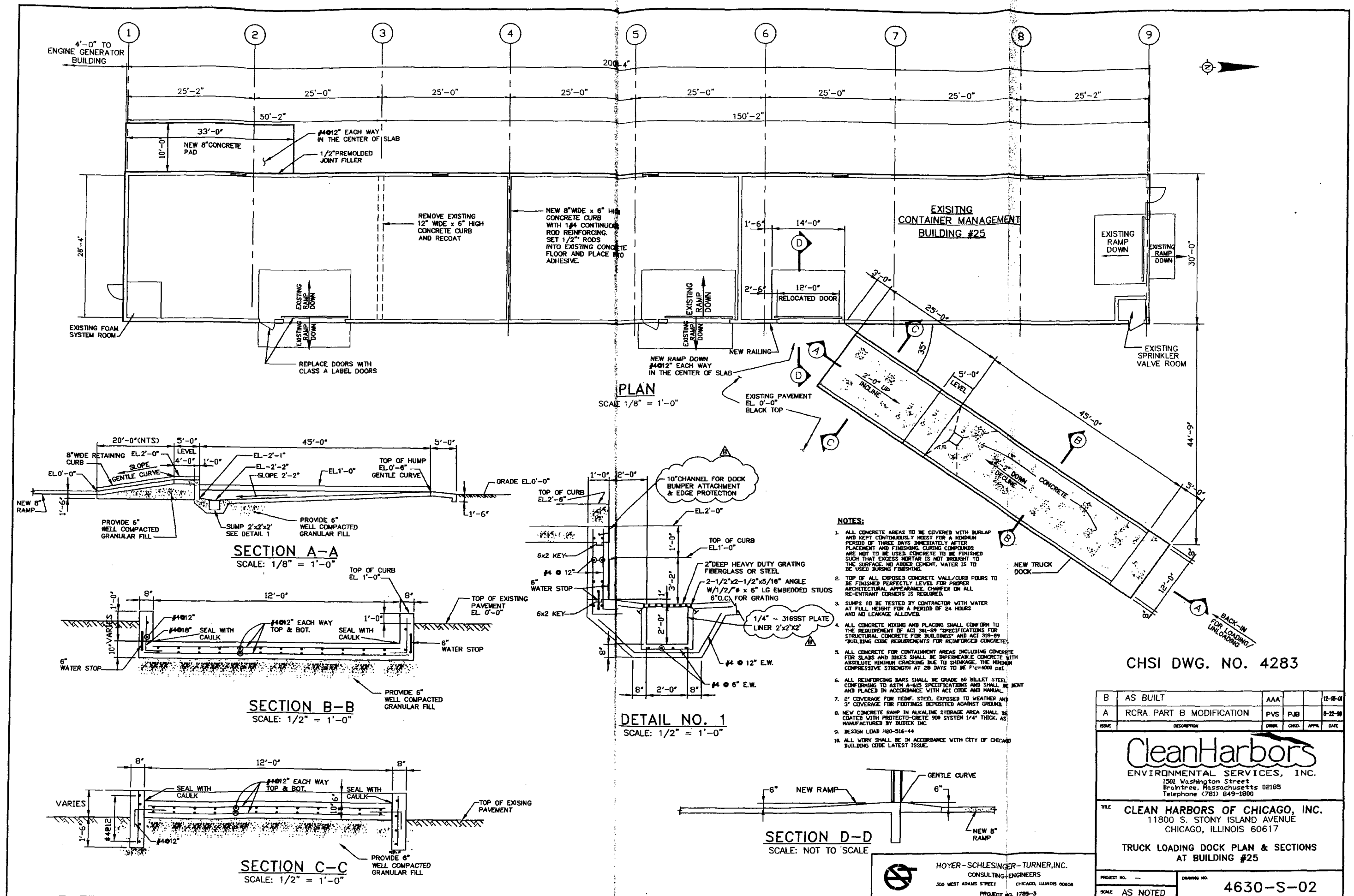
CONTAINER MANAGEMENT LAYOUT BUILDING #25

C	CHANGED DRAWING TITLE & EQUIPMENT LIST
REV. #	REVISION NOTES

PROJECT NO. CH114630  
SCALE AS NOTED

DRAWING NO. 4630-M-05





CHSI DWG. NO. 4283

B	AS BUILT	AAA		12-10-01	
A	RCRA PART B MODIFICATION	PVS	PJB	8-22-98	
ISSUE	DESCRIPTION	OWNER	CHGD.	APPL.	DATE
<div><h1>CleanHarbors</h1><p>ENVIRONMENTAL SERVICES, INC. 1501 Washington Street Braintree, Massachusetts 02185 Telephone (781) 849-1800</p></div>					
TITLE <b>CLEAN HARBORS OF CHICAGO, INC.</b> 11800 S. STONY ISLAND AVENUE CHICAGO, ILLINOIS 60617					
<b>TRUCK LOADING DOCK PLAN &amp; SECTIONS</b> <b>AT BUILDING #25</b>					
PROJECT NO. ---		DRAWING NO.			
SCALE AS NOTED		4630-S-02			

HOYER-SCHLESINGER-TURNER, INC.  
CONSULTING ENGINEERS  
300 WEST ADAMS STREET  
CHICAGO, ILLINOIS 60606  
PROJECT NO. 1785-3

# ENVIRONMENTAL MONITORING AND TECHNOLOGIES, INC.



8100 North Austin • Morton Grove, IL 60053-3203  
847.967.6666 • 800.246.0666 • fax: 847.967.6735 • www.emt.com

Jim Laubsted  
Clean Harbors  
11800 South Stony Island Avenue  
Chicago, IL 60617

November 27, 2012

RE Northside

Lab Orders:  
12110446

Dear Mr. Jim Laubsted:

Enclosed are the analytical reports for the EMT Lab Order listed. Also included with this analytical report is a copy of the chain of custody associated with these samples. If you have any questions, please contact me at 847-967-6666.

Sincerely,

Joe Pavilonis  
Project Manager

Approved by,

Marilyn Krueding  
Laboratory Director

This Report Contains 29 pages

The Contents of this report apply to the sample(s) analyzed. No duplication is allowed except in its entirety.

State of Illinois, NELAC Accredited Lab. No. 100256  
State of Wisconsin, WDNR Accredited Lab No. 999888890

environmental laboratory and testing services

water	soil	air	product	waste
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# ENVIRONMENTAL MONITORING AND TECHNOLOGIES, INC.



8100 North Austin • Morton Grove, IL 60053-3203  
847.967.6666 • 800.246.0663 • fax: 847.967.6735 • www.emt.com

**CLIENT:** Clean Harbors

**Date:** 11/27/2012

**Project:** Northside

## CASE NARRATIVE

**Lab Order:** 12110446

Unless otherwise noted, samples were analyzed using the methods outlined in the following references:

Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, SW846, 3rd Edition

Unless otherwise noted, all method blanks, laboratory spikes, and/or matrix spikes met quality assurance objectives.

Sample results relate only to the analytes of interest tested and to the sample received at the laboratory.

All results are reported on a wet weight basis, unless otherwise noted. Dry weight adjusted results, reporting limits, method detection limits and dilution factors are indicated by the notation "dry" in the Units column. If present, a dilution factor will adjust the method detection limits and reporting limits.

The test results contained in this report meet all of the requirements of NELAC. Accreditation by the State of Illinois or Wisconsin is not an endorsement or a guarantee of the validity of data generated. For specific information regarding EMT's scope of accreditation, please contact your EMT project manager.

The Reporting Limit listed on the Report of Laboratory Analysis is EMT's reporting limit for the analyte reported. For most test methods this reporting limit is primarily based upon the lowest point in the calibration curve.

Analyst's initials of "OUT" indicate that the analyte was analyzed by a subcontracted laboratory.

### Method References:

SW=USEPA, Test Methods for Evaluating Solid Waste, SW-846.

E=USEPA Methods for the Determination of Inorganic Substances in Environmental Samples; Methods for Chemical Analysis of Water and Wastes; Methods for Organic Chemical Analysis of Municipal and Industrial Wastewater, 40 CFR Part 136, App A; methods for the Determination of Metals in Environmental Samples; Methods for the Determination of Organic Compounds in Drinking Water.

SM= APHA, Standard Methods for the Examination of Water and Wastewater.

D=ASTM, Annual Book of Standards

Batch numbers starting with a letter indicate an analytical batch while those that are exclusively numerals indicate a preparation batch.

environmental laboratory and testing services

water | soil | air | product | waste

# ENVIRONMENTAL MONITORING AND TECHNOLOGIES, INC.



8100 North Austin • Morton Grove, IL 60053-3203  
847.967.6666 • 800.246.0663 • fax: 847.967.6735 • www.emt.com

**CLIENT:** Clean Harbors

**Date:** 11/27/2012

**Project:** Northside

## CASE NARRATIVE

**Lab Order:** 12110446

Analytical Comments for METHOD 8082\_SXPPM, 12110446-11A, 12A, 13A, 14A: Surrogate was diluted out.

environmental laboratory and testing services

water | soil | air | product | waste

# ENVIRONMENTAL MONITORING AND TECHNOLOGIES, INC.



8100 North Austin • Morton Grove, IL 60053-3203  
847.967.6666 • 800.246.0663 • fax: 847.967.6735 • www.emt.com

## Report of Laboratory Analysis

**CLIENT:** Clean Harbors  
**Lab Order:** 12110446  
**Project:** Northside  
**Lab ID:** 12110446-01

**Client Sample ID:** CONTAINMENT#101  
**Report Date:** 11/27/2012  
**Collection Date:** 11/13/2012  
**Matrix:** Liquid

Analyses	Result	EMT Reporting Limit	Units	Date Analyzed	Batch	Analyst
<b>Mercury, TCLP Extracted</b>						
		<b>Method: SW7470A / SW1311 / HG PREP</b>				
Mercury	< 0.0005	0.0005	mg/L	11/19/12 12:01	78261	IG
<b>Metals, TCLP Extracted</b>						
		<b>Method: SW6020A / SW1311 / SW3015</b>				
Arsenic	< 0.0312	0.0312	mg/L	11/17/12 01:11	78193	AG
Barium	0.287	0.0312	mg/L	11/17/12 01:11	78193	AG
Cadmium	< 0.0063	0.0063	mg/L	11/17/12 01:11	78193	AG
Chromium	< 0.0438	0.0438	mg/L	11/17/12 01:11	78193	AG
Lead	< 0.0125	0.0125	mg/L	11/17/12 01:11	78193	AG
Selenium	< 0.112	0.112	mg/L	11/17/12 01:11	78193	AG
Silver	< 0.0125	0.0125	mg/L	11/17/12 01:11	78193	AG
<b>Semivolatile Organic Compounds, TCLP</b>						
		<b>Method: SW1311 / SW8270D / SW3510C</b>				
1,4-Dichlorobenzene	< 3.75	3.75	mg/L	11/16/12 20:12	78203	RYL
2,4,5-Trichlorophenol	< 200.	200.	mg/L	11/16/12 20:12	78203	RYL
2,4,6-Trichlorophenol	< 1.	1.	mg/L	11/16/12 20:12	78203	RYL
2,4-Dinitrotoluene	< 0.065	0.065	mg/L	11/16/12 20:12	78203	RYL
Hexachlorobenzene	< 0.065	0.065	mg/L	11/16/12 20:12	78203	RYL
Hexachlorobutadiene	< 0.25	0.25	mg/L	11/16/12 20:12	78203	RYL
Hexachloroethane	< 1.5	1.5	mg/L	11/16/12 20:12	78203	RYL
m,p-Cresol	< 100.	100.	mg/L	11/16/12 20:12	78203	RYL
Nitrobenzene	< 1.	1.	mg/L	11/16/12 20:12	78203	RYL
o-Cresol	< 100.	100.	mg/L	11/16/12 20:12	78203	RYL
Pentachlorophenol	< 50.	50.	mg/L	11/16/12 20:12	78203	RYL
Pyridine	< 2.5	2.5	mg/L	11/16/12 20:12	78203	RYL
Cresols, total	< 100.	100.	mg/L	11/16/12 20:12	78203	RYL
<b>Volatile Organic Compounds, TCLP</b>						
		<b>Method: SW1311 / SW8260B / SW5030A</b>				
1,1-Dichloroethene	< 0.35	0.35	mg/L	11/19/12 13:57	78279	JL
1,2-Dichloroethane	< 0.25	0.25	mg/L	11/19/12 13:57	78279	JL
1,4-Dichlorobenzene	< 3.75	3.75	mg/L	11/19/12 13:57	78279	JL
2-Butanone	< 100.	100.	mg/L	11/19/12 13:57	78279	JL
Benzene	< 0.25	0.25	mg/L	11/19/12 13:57	78279	JL
Carbon tetrachloride	< 0.25	0.25	mg/L	11/19/12 13:57	78279	JL
Chlorobenzene	< 50.	50.	mg/L	11/19/12 13:57	78279	JL

**Qualifiers:** B - Analyte detected in the associated Method Blank  
E - Estimated  
H - Holding Time Exceeded  
C - Laboratory not accredited for this parameter

S - Spike Recovery outside accepted recovery limits  
R - RPD outside accepted recovery limits  
J - Analyte detected below quantitation limits

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## Report of Laboratory Analysis

**CLIENT:** Clean Harbors  
**Lab Order:** 12110446  
**Project:** Northside  
**Lab ID:** 12110446-01

**Client Sample ID:** CONTAINMENT#101  
**Report Date:** 11/27/2012  
**Collection Date:** 11/13/2012  
**Matrix:** Liquid

Analyses	Result	EMT Reporting Limit	Units	Date Analyzed	Batch	Analyst
Chloroform	< 3.	3.	mg/L	11/19/12 13:57	78279	JL
Tetrachloroethene	< 0.35	0.35	mg/L	11/19/12 13:57	78279	JL
Trichloroethene	< 0.25	0.25	mg/L	11/19/12 13:57	78279	JL
Vinyl chloride	< 0.1	0.1	mg/L	11/19/12 13:57	78279	JL

### Qualifiers:

B - Analyte detected in the associated Method Blank  
E - Estimated  
H - Holding Time Exceeded  
C - Laboratory not accredited for this parameter

S - Spike Recovery outside accepted recovery limits  
R - RPD outside accepted recovery limits  
J - Analyte detected below quantitation limits

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## Report of Laboratory Analysis

**CLIENT:** Clean Harbors  
**Lab Order:** 12110446  
**Project:** Northside  
**Lab ID:** 12110446-02

**Client Sample ID:** CONTAINMENT#102  
**Report Date:** 11/27/2012  
**Collection Date:** 11/13/2012  
**Matrix:** Liquid

Analyses	Result	EMT Reporting Limit	Units	Date Analyzed	Batch	Analyst
<b>Mercury, TCLP Extracted</b>						
<b>Method: SW7470A / SW1311 / HG PREP</b>						
Mercury	< 0.0005	0.0005	mg/L	11/19/12 12:01	78261	IG
<b>Metals, TCLP Extracted</b>						
<b>Method: SW6020A / SW1311 / SW3015</b>						
Arsenic	< 0.0312	0.0312	mg/L	11/17/12 01:16	78193	AG
Barium	0.161	0.0312	mg/L	11/17/12 01:16	78193	AG
Cadmium	< 0.0063	0.0063	mg/L	11/17/12 01:16	78193	AG
Chromium	< 0.0438	0.0438	mg/L	11/17/12 01:16	78193	AG
Lead	< 0.0125	0.0125	mg/L	11/17/12 01:16	78193	AG
Selenium	< 0.112	0.112	mg/L	11/17/12 01:16	78193	AG
Silver	< 0.0125	0.0125	mg/L	11/17/12 01:16	78193	AG
<b>Semivolatile Organic Compounds, TCLP</b>						
<b>Method: SW1311 / SW8270D / SW3510C</b>						
1,4-Dichlorobenzene	< 3.75	3.75	mg/L	11/16/12 20:55	78203	RYL
2,4,5-Trichlorophenol	< 200.	200.	mg/L	11/16/12 20:55	78203	RYL
2,4,6-Trichlorophenol	< 1.	1.	mg/L	11/16/12 20:55	78203	RYL
2,4-Dinitrotoluene	< 0.065	0.065	mg/L	11/16/12 20:55	78203	RYL
Hexachlorobenzene	< 0.065	0.065	mg/L	11/16/12 20:55	78203	RYL
Hexachlorobutadiene	< 0.25	0.25	mg/L	11/16/12 20:55	78203	RYL
Hexachloroethane	< 1.5	1.5	mg/L	11/16/12 20:55	78203	RYL
m,p-Cresol	< 100.	100.	mg/L	11/16/12 20:55	78203	RYL
Nitrobenzene	< 1.	1.	mg/L	11/16/12 20:55	78203	RYL
o-Cresol	< 100.	100.	mg/L	11/16/12 20:55	78203	RYL
Pentachlorophenol	< 50.	50.	mg/L	11/16/12 20:55	78203	RYL
Pyridine	< 2.5	2.5	mg/L	11/16/12 20:55	78203	RYL
Cresols, total	< 100.	100.	mg/L	11/16/12 20:55	78203	RYL
<b>Volatile Organic Compounds, TCLP</b>						
<b>Method: SW1311 / SW8260B / SW5030A</b>						
1,1-Dichloroethene	< 0.35	0.35	mg/L	11/19/12 14:31	78279	JL
1,2-Dichloroethane	< 0.25	0.25	mg/L	11/19/12 14:31	78279	JL
1,4-Dichlorobenzene	< 3.75	3.75	mg/L	11/19/12 14:31	78279	JL
2-Butanone	< 100.	100.	mg/L	11/19/12 14:31	78279	JL
Benzene	< 0.25	0.25	mg/L	11/19/12 14:31	78279	JL
Carbon tetrachloride	< 0.25	0.25	mg/L	11/19/12 14:31	78279	JL
Chlorobenzene	< 50.	50.	mg/L	11/19/12 14:31	78279	JL

**Qualifiers:** B - Analyte detected in the associated Method Blank  
E - Estimated  
H - Holding Time Exceeded  
C - Laboratory not accredited for this parameter

S - Spike Recovery outside accepted recovery limits  
R - RPD outside accepted recovery limits  
J - Analyte detected below quantitation limits

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## Report of Laboratory Analysis

**CLIENT:** Clean Harbors  
**Lab Order:** 12110446  
**Project:** Northside  
**Lab ID:** 12110446-02

**Client Sample ID:** CONTAINMENT#102  
**Report Date:** 11/27/2012  
**Collection Date:** 11/13/2012  
**Matrix:** Liquid

Analyses	Result	EMT Reporting Limit	Units	Date Analyzed	Batch	Analyst
Chloroform	< 3.	3.	mg/L	11/19/12 14:31	78279	JL
Tetrachloroethene	< 0.35	0.35	mg/L	11/19/12 14:31	78279	JL
Trichloroethene	< 0.25	0.25	mg/L	11/19/12 14:31	78279	JL
Vinyl chloride	< 0.1	0.1	mg/L	11/19/12 14:31	78279	JL

**Qualifiers:**  
B - Analyte detected in the associated Method Blank  
E - Estimated  
H - Holding Time Exceeded  
C - Laboratory not accredited for this parameter

S - Spike Recovery outside accepted recovery limits  
R - RPD outside accepted recovery limits  
J - Analyte detected below quantitation limits

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## Report of Laboratory Analysis

**CLIENT:** Clean Harbors  
**Lab Order:** 12110446  
**Project:** Northside  
**Lab ID:** 12110446-03

**Client Sample ID:** CONTAINMENT#103  
**Report Date:** 11/27/2012  
**Collection Date:** 11/13/2012  
**Matrix:** Liquid

Analyses	Result	EMT Reporting Limit	Units	Date Analyzed	Batch	Analyst
<b>Mercury, TCLP Extracted</b>						
		<b>Method: SW7470A / SW1311 / HG PREP</b>				
Mercury	< 0.0005	0.0005	mg/L	11/19/12 12:01	78261	IG
<b>Metals, TCLP Extracted</b>						
		<b>Method: SW6020A / SW1311 / SW3015</b>				
Arsenic	< 0.0312	0.0312	mg/L	11/17/12 01:22	78193	AG
Barium	0.224	0.0312	mg/L	11/17/12 01:22	78193	AG
Cadmium	< 0.0063	0.0063	mg/L	11/17/12 01:22	78193	AG
Chromium	< 0.0438	0.0438	mg/L	11/17/12 01:22	78193	AG
Lead	< 0.0125	0.0125	mg/L	11/17/12 01:22	78193	AG
Selenium	< 0.112	0.112	mg/L	11/17/12 01:22	78193	AG
Silver	< 0.0125	0.0125	mg/L	11/17/12 01:22	78193	AG
<b>Semivolatile Organic Compounds, TCLP</b>						
		<b>Method: SW1311 / SW8270D / SW3510C</b>				
1,4-Dichlorobenzene	< 3.75	3.75	mg/L	11/21/12 22:50	78323	RYL
2,4,5-Trichlorophenol	< 200.	200.	mg/L	11/21/12 22:50	78323	RYL
2,4,6-Trichlorophenol	< 1.	1.	mg/L	11/21/12 22:50	78323	RYL
2,4-Dinitrotoluene	< 0.065	0.065	mg/L	11/21/12 22:50	78323	RYL
Hexachlorobenzene	< 0.065	0.065	mg/L	11/21/12 22:50	78323	RYL
Hexachlorobutadiene	< 0.25	0.25	mg/L	11/21/12 22:50	78323	RYL
Hexachloroethane	< 1.5	1.5	mg/L	11/21/12 22:50	78323	RYL
m,p-Cresol	< 100.	100.	mg/L	11/21/12 22:50	78323	RYL
Nitrobenzene	< 1.	1.	mg/L	11/21/12 22:50	78323	RYL
o-Cresol	< 100.	100.	mg/L	11/21/12 22:50	78323	RYL
Pentachlorophenol	< 50.	50.	mg/L	11/21/12 22:50	78323	RYL
Pyridine	< 2.5	2.5	mg/L	11/21/12 22:50	78323	RYL
Cresols, total	< 100.	100.	mg/L	11/21/12 22:50	78323	RYL
<b>Volatile Organic Compounds, TCLP</b>						
		<b>Method: SW1311 / SW8260B / SW5030A</b>				
1,1-Dichloroethene	< 0.35	0.35	mg/L	11/19/12 15:05	78279	JL
1,2-Dichloroethane	< 0.25	0.25	mg/L	11/19/12 15:05	78279	JL
1,4-Dichlorobenzene	< 3.75	3.75	mg/L	11/19/12 15:05	78279	JL
2-Butanone	< 100.	100.	mg/L	11/19/12 15:05	78279	JL
Benzene	< 0.25	0.25	mg/L	11/19/12 15:05	78279	JL
Carbon tetrachloride	< 0.25	0.25	mg/L	11/19/12 15:05	78279	JL
Chlorobenzene	< 50.	50.	mg/L	11/19/12 15:05	78279	JL

### Qualifiers:

B - Analyte detected in the associated Method Blank  
E - Estimated  
H - Holding Time Exceeded  
C - Laboratory not accredited for this parameter

S - Spike Recovery outside accepted recovery limits  
R - RPD outside accepted recovery limits  
J - Analyte detected below quantitation limits

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## Report of Laboratory Analysis

**CLIENT:** Clean Harbors  
**Lab Order:** 12110446  
**Project:** Northside  
**Lab ID:** 12110446-03

**Client Sample ID:** CONTAINMENT#103  
**Report Date:** 11/27/2012  
**Collection Date:** 11/13/2012  
**Matrix:** Liquid

Analyses	Result	EMT Reporting Limit	Units	Date Analyzed	Batch	Analyst
Chloroform	< 3.	3.	mg/L	11/19/12 15:05	78279	JL
Tetrachloroethene	< 0.35	0.35	mg/L	11/19/12 15:05	78279	JL
Trichloroethene	< 0.25	0.25	mg/L	11/19/12 15:05	78279	JL
Vinyl chloride	< 0.1	0.1	mg/L	11/19/12 15:05	78279	JL

### Qualifiers:

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H - Holding Time Exceeded  
C - Laboratory not accredited for this parameter

S - Spike Recovery outside accepted recovery limits  
R - RPD outside accepted recovery limits  
J - Analyte detected below quantitation limits

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## Report of Laboratory Analysis

**CLIENT:** Clean Harbors  
**Lab Order:** 12110446  
**Project:** Northside  
**Lab ID:** 12110446-04

**Client Sample ID:** CONTAINMENT#104  
**Report Date:** 11/27/2012  
**Collection Date:** 11/13/2012  
**Matrix:** Liquid

Analyses	Result	EMT Reporting Limit	Units	Date Analyzed	Batch	Analyst
<b>Mercury, TCLP Extracted</b>						
		<b>Method: SW7470A / SW1311 / HG PREP</b>				
Mercury	< 0.0005	0.0005	mg/L	11/19/12 12:01	78261	IG
<b>Metals, TCLP Extracted</b>						
		<b>Method: SW6020A / SW1311 / SW3015</b>				
Arsenic	< 0.0312	0.0312	mg/L	11/19/12 10:48	78207	AG
Barium	0.131	0.0312	mg/L	11/19/12 10:48	78207	AG
Cadmium	< 0.0063	0.0063	mg/L	11/19/12 10:48	78207	AG
Chromium	< 0.0438	0.0438	mg/L	11/19/12 10:48	78207	AG
Lead	< 0.0125	0.0125	mg/L	11/19/12 10:48	78207	AG
Selenium	< 0.112	0.112	mg/L	11/19/12 10:48	78207	AG
Silver	< 0.0125	0.0125	mg/L	11/19/12 10:48	78207	AG
<b>Semivolatile Organic Compounds, TCLP</b>						
		<b>Method: SW1311 / SW8270D / SW3510C</b>				
1,4-Dichlorobenzene	< 3.75	3.75	mg/L	11/21/12 23:34	78323	RYL
2,4,5-Trichlorophenol	< 200.	200.	mg/L	11/21/12 23:34	78323	RYL
2,4,6-Trichlorophenol	< 1.	1.	mg/L	11/21/12 23:34	78323	RYL
2,4-Dinitrotoluene	< 0.065	0.065	mg/L	11/21/12 23:34	78323	RYL
Hexachlorobenzene	< 0.065	0.065	mg/L	11/21/12 23:34	78323	RYL
Hexachlorobutadiene	< 0.25	0.25	mg/L	11/21/12 23:34	78323	RYL
Hexachloroethane	< 1.5	1.5	mg/L	11/21/12 23:34	78323	RYL
m,p-Cresol	< 100.	100.	mg/L	11/21/12 23:34	78323	RYL
Nitrobenzene	< 1.	1.	mg/L	11/21/12 23:34	78323	RYL
o-Cresol	< 100.	100.	mg/L	11/21/12 23:34	78323	RYL
Pentachlorophenol	< 50.	50.	mg/L	11/21/12 23:34	78323	RYL
Pyridine	< 2.5	2.5	mg/L	11/21/12 23:34	78323	RYL
Cresols, total	< 100.	100.	mg/L	11/21/12 23:34	78323	RYL
<b>Volatile Organic Compounds, TCLP</b>						
		<b>Method: SW1311 / SW8260B / SW5030A</b>				
1,1-Dichloroethene	< 0.35	0.35	mg/L	11/19/12 15:39	78279	JL
1,2-Dichloroethane	< 0.25	0.25	mg/L	11/19/12 15:39	78279	JL
1,4-Dichlorobenzene	< 3.75	3.75	mg/L	11/19/12 15:39	78279	JL
2-Butanone	< 100.	100.	mg/L	11/19/12 15:39	78279	JL
Benzene	< 0.25	0.25	mg/L	11/19/12 15:39	78279	JL
Carbon tetrachloride	< 0.25	0.25	mg/L	11/19/12 15:39	78279	JL
Chlorobenzene	< 50.	50.	mg/L	11/19/12 15:39	78279	JL

**Qualifiers:** B - Analyte detected in the associated Method Blank  
E - Estimated  
H - Holding Time Exceeded  
C - Laboratory not accredited for this parameter

S - Spike Recovery outside accepted recovery limits  
R - RPD outside accepted recovery limits  
J - Analyte detected below quantitation limits

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## Report of Laboratory Analysis

**CLIENT:** Clean Harbors  
**Lab Order:** 12110446  
**Project:** Northside  
**Lab ID:** 12110446-04

**Client Sample ID:** CONTAINMENT#104  
**Report Date:** 11/27/2012  
**Collection Date:** 11/13/2012  
**Matrix:** Liquid

Analyses	Result	EMT Reporting Limit	Units	Date Analyzed	Batch	Analyst
Chloroform	< 3.	3.	mg/L	11/19/12 15:39	78279	JL
Tetrachloroethene	< 0.35	0.35	mg/L	11/19/12 15:39	78279	JL
Trichloroethene	< 0.25	0.25	mg/L	11/19/12 15:39	78279	JL
Vinyl chloride	< 0.1	0.1	mg/L	11/19/12 15:39	78279	JL

### Qualifiers:

B - Analyte detected in the associated Method Blank  
E - Estimated  
H - Holding Time Exceeded  
C - Laboratory not accredited for this parameter

S - Spike Recovery outside accepted recovery limits  
R - RPD outside accepted recovery limits  
J - Analyte detected below quantitation limits

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## Report of Laboratory Analysis

**CLIENT:** Clean Harbors  
**Lab Order:** 12110446  
**Project:** Northside  
**Lab ID:** 12110446-05

**Client Sample ID:** BUILDING #61  
**Report Date:** 11/27/2012  
**Collection Date:** 11/13/2012  
**Matrix:** Liquid

Analyses	Result	EMT Reporting Limit	Units	Date Analyzed	Batch	Analyst
<b>Mercury, TCLP Extracted</b>						
		<b>Method: SW7470A / SW1311 / HG PREP</b>				
Mercury	< 0.0005	0.0005	mg/L	11/19/12 12:01	78261	IG
<b>Metals, TCLP Extracted</b>						
		<b>Method: SW6020A / SW1311 / SW3015</b>				
Arsenic	< 0.0312	0.0312	mg/L	11/19/12 10:48	78207	AG
Barium	0.188	0.0312	mg/L	11/19/12 10:48	78207	AG
Cadmium	< 0.0063	0.0063	mg/L	11/19/12 10:48	78207	AG
Chromium	< 0.0438	0.0438	mg/L	11/19/12 10:48	78207	AG
Lead	< 0.0125	0.0125	mg/L	11/19/12 10:48	78207	AG
Selenium	< 0.112	0.112	mg/L	11/19/12 10:48	78207	AG
Silver	< 0.0125	0.0125	mg/L	11/19/12 10:48	78207	AG
<b>Semivolatile Organic Compounds, TCLP</b>						
		<b>Method: SW1311 / SW8270D / SW3510C</b>				
1,4-Dichlorobenzene	< 3.75	3.75	mg/L	11/22/12 00:17	78323	RYL
2,4,5-Trichlorophenol	< 200.	200.	mg/L	11/22/12 00:17	78323	RYL
2,4,6-Trichlorophenol	< 1.	1.	mg/L	11/22/12 00:17	78323	RYL
2,4-Dinitrotoluene	< 0.065	0.065	mg/L	11/22/12 00:17	78323	RYL
Hexachlorobenzene	< 0.065	0.065	mg/L	11/22/12 00:17	78323	RYL
Hexachlorobutadiene	< 0.25	0.25	mg/L	11/22/12 00:17	78323	RYL
Hexachloroethane	< 1.5	1.5	mg/L	11/22/12 00:17	78323	RYL
m,p-Cresol	< 100.	100.	mg/L	11/22/12 00:17	78323	RYL
Nitrobenzene	< 1.	1.	mg/L	11/22/12 00:17	78323	RYL
o-Cresol	< 100.	100.	mg/L	11/22/12 00:17	78323	RYL
Pentachlorophenol	< 50.	50.	mg/L	11/22/12 00:17	78323	RYL
Pyridine	< 2.5	2.5	mg/L	11/22/12 00:17	78323	RYL
Cresols, total	< 100.	100.	mg/L	11/22/12 00:17	78323	RYL
<b>Volatile Organic Compounds, TCLP</b>						
		<b>Method: SW1311 / SW8260B / SW5030A</b>				
1,1-Dichloroethene	< 0.35	0.35	mg/L	11/20/12 02:16	78280	JL
1,2-Dichloroethane	< 0.25	0.25	mg/L	11/20/12 02:16	78280	JL
1,4-Dichlorobenzene	< 3.75	3.75	mg/L	11/20/12 02:16	78280	JL
2-Butanone	< 100.	100.	mg/L	11/20/12 02:16	78280	JL
Benzene	< 0.25	0.25	mg/L	11/20/12 02:16	78280	JL
Carbon tetrachloride	< 0.25	0.25	mg/L	11/20/12 02:16	78280	JL
Chlorobenzene	< 50.	50.	mg/L	11/20/12 02:16	78280	JL

**Qualifiers:** B - Analyte detected in the associated Method Blank  
E - Estimated  
H - Holding Time Exceeded  
C - Laboratory not accredited for this parameter

S - Spike Recovery outside accepted recovery limits  
R - RPD outside accepted recovery limits  
J - Analyte detected below quantitation limits

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## Report of Laboratory Analysis

**CLIENT:** Clean Harbors  
**Lab Order:** 12110446  
**Project:** Northside  
**Lab ID:** 12110446-05

**Client Sample ID:** BUILDING #61  
**Report Date:** 11/27/2012  
**Collection Date:** 11/13/2012  
**Matrix:** Liquid

Analyses	Result	EMT Reporting Limit	Units	Date Analyzed	Batch	Analyst
Chloroform	< 3.	3.	mg/L	11/20/12 02:16	78280	JL
Tetrachloroethene	< 0.35	0.35	mg/L	11/20/12 02:16	78280	JL
Trichloroethene	< 0.25	0.25	mg/L	11/20/12 02:16	78280	JL
Vinyl chloride	< 0.1	0.1	mg/L	11/20/12 02:16	78280	JL

### Qualifiers:

B - Analyte detected in the associated Method Blank  
E - Estimated  
H - Holding Time Exceeded  
C - Laboratory not accredited for this parameter

S - Spike Recovery outside accepted recovery limits  
R - RPD outside accepted recovery limits  
J - Analyte detected below quantitation limits

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## Report of Laboratory Analysis

**CLIENT:** Clean Harbors  
**Lab Order:** 12110446  
**Project:** Northside  
**Lab ID:** 12110446-06

**Client Sample ID:** PAD#62  
**Report Date:** 11/27/2012  
**Collection Date:** 11/13/2012  
**Matrix:** Liquid

Analyses	Result	EMT Reporting Limit	Units	Date Analyzed	Batch	Analyst
<b>Mercury, TCLP Extracted</b>						
<b>Method: SW7470A / SW1311 / HG PREP</b>						
Mercury	< 0.0005	0.0005	mg/L	11/19/12 12:01	78261	IG
<b>Metals, TCLP Extracted</b>						
<b>Method: SW6020A / SW1311 / SW3015</b>						
Arsenic	< 0.0312	0.0312	mg/L	11/19/12 10:48	78207	AG
Barium	0.251	0.0312	mg/L	11/19/12 10:48	78207	AG
Cadmium	< 0.0063	0.0063	mg/L	11/19/12 10:48	78207	AG
Chromium	< 0.0438	0.0438	mg/L	11/19/12 10:48	78207	AG
Lead	< 0.0125	0.0125	mg/L	11/19/12 10:48	78207	AG
Selenium	< 0.112	0.112	mg/L	11/19/12 10:48	78207	AG
Silver	< 0.0125	0.0125	mg/L	11/19/12 10:48	78207	AG
<b>Semivolatile Organic Compounds, TCLP</b>						
<b>Method: SW1311 / SW8270D / SW3510C</b>						
1,4-Dichlorobenzene	< 3.75	3.75	mg/L	11/24/12 15:23	78338	RYL
2,4,5-Trichlorophenol	< 200.	200.	mg/L	11/24/12 15:23	78338	RYL
2,4,6-Trichlorophenol	< 1.	1.	mg/L	11/24/12 15:23	78338	RYL
2,4-Dinitrotoluene	< 0.065	0.065	mg/L	11/24/12 15:23	78338	RYL
Hexachlorobenzene	< 0.065	0.065	mg/L	11/24/12 15:23	78338	RYL
Hexachlorobutadiene	< 0.25	0.25	mg/L	11/24/12 15:23	78338	RYL
Hexachloroethane	< 1.5	1.5	mg/L	11/24/12 15:23	78338	RYL
m,p-Cresol	< 100.	100.	mg/L	11/24/12 15:23	78338	RYL
Nitrobenzene	< 1.	1.	mg/L	11/24/12 15:23	78338	RYL
o-Cresol	< 100.	100.	mg/L	11/24/12 15:23	78338	RYL
Pentachlorophenol	< 50.	50.	mg/L	11/24/12 15:23	78338	RYL
Pyridine	< 2.5	2.5	mg/L	11/24/12 15:23	78338	RYL
Cresols, total	< 100.	100.	mg/L	11/24/12 15:23	78338	RYL
<b>Volatile Organic Compounds, TCLP</b>						
<b>Method: SW1311 / SW8260B / SW5030A</b>						
1,1-Dichloroethene	< 0.35	0.35	mg/L	11/20/12 02:50	78280	JL
1,2-Dichloroethane	< 0.25	0.25	mg/L	11/20/12 02:50	78280	JL
1,4-Dichlorobenzene	< 3.75	3.75	mg/L	11/20/12 02:50	78280	JL
2-Butanone	< 100.	100.	mg/L	11/20/12 02:50	78280	JL
Benzene	< 0.25	0.25	mg/L	11/20/12 02:50	78280	JL
Carbon tetrachloride	< 0.25	0.25	mg/L	11/20/12 02:50	78280	JL
Chlorobenzene	< 50.	50.	mg/L	11/20/12 02:50	78280	JL

**Qualifiers:** B - Analyte detected in the associated Method Blank  
E - Estimated  
H - Holding Time Exceeded  
C - Laboratory not accredited for this parameter

S - Spike Recovery outside accepted recovery limits  
R - RPD outside accepted recovery limits  
J - Analyte detected below quantitation limits

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## Report of Laboratory Analysis

**CLIENT:** Clean Harbors  
**Lab Order:** 12110446  
**Project:** Northside  
**Lab ID:** 12110446-06

**Client Sample ID:** PAD#62  
**Report Date:** 11/27/2012  
**Collection Date:** 11/13/2012  
**Matrix:** Liquid

Analyses	Result	EMT Reporting Limit	Units	Date Analyzed	Batch	Analyst
Chloroform	< 3.	3.	mg/L	11/20/12 02:50	78280	JL
Tetrachloroethene	< 0.35	0.35	mg/L	11/20/12 02:50	78280	JL
Trichloroethene	< 0.25	0.25	mg/L	11/20/12 02:50	78280	JL
Vinyl chloride	< 0.1	0.1	mg/L	11/20/12 02:50	78280	JL

### Qualifiers:

B - Analyte detected in the associated Method Blank  
E - Estimated  
H - Holding Time Exceeded  
C - Laboratory not accredited for this parameter

S - Spike Recovery outside accepted recovery limits  
R - RPD outside accepted recovery limits  
J - Analyte detected below quantitation limits

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## Report of Laboratory Analysis

**CLIENT:** Clean Harbors  
**Lab Order:** 12110446  
**Project:** Northside  
**Lab ID:** 12110446-07

**Client Sample ID:** PEGASIS PAD#43  
**Report Date:** 11/27/2012  
**Collection Date:** 11/13/2012  
**Matrix:** Liquid

Analyses	Result	EMT Reporting Limit	Units	Date Analyzed	Batch	Analyst
<b>Mercury, TCLP Extracted</b>						
		<b>Method: SW7470A / SW1311 / HG PREP</b>				
Mercury	< 0.0005	0.0005	mg/L	11/19/12 12:01	78261	IG
<b>Metals, TCLP Extracted</b>						
		<b>Method: SW6020A / SW1311 / SW3015</b>				
Arsenic	0.0348	0.0312	mg/L	11/19/12 10:48	78207	AG
Barium	0.119	0.0312	mg/L	11/19/12 10:48	78207	AG
Cadmium	< 0.0063	0.0063	mg/L	11/19/12 10:48	78207	AG
Chromium	< 0.0438	0.0438	mg/L	11/19/12 10:48	78207	AG
Lead	< 0.0125	0.0125	mg/L	11/19/12 10:48	78207	AG
Selenium	< 0.112	0.112	mg/L	11/19/12 10:48	78207	AG
Silver	< 0.0125	0.0125	mg/L	11/19/12 10:48	78207	AG
<b>Semivolatile Organic Compounds, TCLP</b>						
		<b>Method: SW1311 / SW8270D / SW3510C</b>				
1,4-Dichlorobenzene	< 3.75	3.75	mg/L	11/24/12 16:07	78338	RYL
2,4,5-Trichlorophenol	< 200.	200.	mg/L	11/24/12 16:07	78338	RYL
2,4,6-Trichlorophenol	< 1.	1.	mg/L	11/24/12 16:07	78338	RYL
2,4-Dinitrotoluene	< 0.065	0.065	mg/L	11/24/12 16:07	78338	RYL
Hexachlorobenzene	< 0.065	0.065	mg/L	11/24/12 16:07	78338	RYL
Hexachlorobutadiene	< 0.25	0.25	mg/L	11/24/12 16:07	78338	RYL
Hexachloroethane	< 1.5	1.5	mg/L	11/24/12 16:07	78338	RYL
m,p-Cresol	< 100.	100.	mg/L	11/24/12 16:07	78338	RYL
Nitrobenzene	< 1.	1.	mg/L	11/24/12 16:07	78338	RYL
o-Cresol	< 100.	100.	mg/L	11/24/12 16:07	78338	RYL
Pentachlorophenol	< 50.	50.	mg/L	11/24/12 16:07	78338	RYL
Pyridine	< 2.5	2.5	mg/L	11/24/12 16:07	78338	RYL
Cresols, total	< 100.	100.	mg/L	11/24/12 16:07	78338	RYL
<b>Volatile Organic Compounds, TCLP</b>						
		<b>Method: SW1311 / SW8260B / SW5030A</b>				
1,1-Dichloroethene	< 0.35	0.35	mg/L	11/19/12 21:16	78279	JL
1,2-Dichloroethane	< 0.25	0.25	mg/L	11/19/12 21:16	78279	JL
1,4-Dichlorobenzene	< 3.75	3.75	mg/L	11/19/12 21:16	78279	JL
2-Butanone	< 100.	100.	mg/L	11/19/12 21:16	78279	JL
Benzene	< 0.25	0.25	mg/L	11/19/12 21:16	78279	JL
Carbon tetrachloride	< 0.25	0.25	mg/L	11/19/12 21:16	78279	JL
Chlorobenzene	< 50.	50.	mg/L	11/19/12 21:16	78279	JL

**Qualifiers:** B - Analyte detected in the associated Method Blank  
E - Estimated  
H - Holding Time Exceeded  
C - Laboratory not accredited for this parameter

S - Spike Recovery outside accepted recovery limits  
R - RPD outside accepted recovery limits  
J - Analyte detected below quantitation limits

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## Report of Laboratory Analysis

**CLIENT:** Clean Harbors  
**Lab Order:** 12110446  
**Project:** Northside  
**Lab ID:** 12110446-07

**Client Sample ID:** PEGASIS PAD#43  
**Report Date:** 11/27/2012  
**Collection Date:** 11/13/2012  
**Matrix:** Liquid

Analyses	Result	EMT Reporting Limit	Units	Date Analyzed	Batch	Analyst
Chloroform	< 3.	3.	mg/L	11/19/12 21:16	78279	JL
Tetrachloroethene	< 0.35	0.35	mg/L	11/19/12 21:16	78279	JL
Trichloroethene	< 0.25	0.25	mg/L	11/19/12 21:16	78279	JL
Vinyl chloride	< 0.1	0.1	mg/L	11/19/12 21:16	78279	JL

**Qualifiers:** B - Analyte detected in the associated Method Blank  
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C - Laboratory not accredited for this parameter

S - Spike Recovery outside accepted recovery limits  
R - RPD outside accepted recovery limits  
J - Analyte detected below quantitation limits

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## Report of Laboratory Analysis

**CLIENT:** Clean Harbors  
**Lab Order:** 12110446  
**Project:** Northside  
**Lab ID:** 12110446-08

**Client Sample ID:** LAB PACK PAD#67  
**Report Date:** 11/27/2012  
**Collection Date:** 11/13/2012  
**Matrix:** Liquid

Analyses	Result	EMT Reporting Limit	Units	Date Analyzed	Batch	Analyst
<b>Mercury, TCLP Extracted</b>						
<b>Method: SW7470A / SW1311 / HG PREP</b>						
Mercury	< 0.0005	0.0005	mg/L	11/19/12 12:01	78261	IG
<b>Metals, TCLP Extracted</b>						
<b>Method: SW6020A / SW1311 / SW3015</b>						
Arsenic	< 0.0312	0.0312	mg/L	11/19/12 10:48	78207	AG
Barium	0.184	0.0312	mg/L	11/19/12 10:48	78207	AG
Cadmium	< 0.0063	0.0063	mg/L	11/19/12 10:48	78207	AG
Chromium	0.0648	0.0438	mg/L	11/19/12 10:48	78207	AG
Lead	< 0.0125	0.0125	mg/L	11/19/12 10:48	78207	AG
Selenium	< 0.112	0.112	mg/L	11/19/12 10:48	78207	AG
Silver	< 0.0125	0.0125	mg/L	11/19/12 10:48	78207	AG
<b>Semivolatile Organic Compounds, TCLP</b>						
<b>Method: SW1311 / SW8270D / SW3510C</b>						
1,4-Dichlorobenzene	< 3.75	3.75	mg/L	11/24/12 16:50	78338	RYL
2,4,5-Trichlorophenol	< 200.	200.	mg/L	11/24/12 16:50	78338	RYL
2,4,6-Trichlorophenol	< 1.	1.	mg/L	11/24/12 16:50	78338	RYL
2,4-Dinitrotoluene	< 0.065	0.065	mg/L	11/24/12 16:50	78338	RYL
Hexachlorobenzene	< 0.065	0.065	mg/L	11/24/12 16:50	78338	RYL
Hexachlorobutadiene	< 0.25	0.25	mg/L	11/24/12 16:50	78338	RYL
Hexachloroethane	< 1.5	1.5	mg/L	11/24/12 16:50	78338	RYL
m,p-Cresol	< 100.	100.	mg/L	11/24/12 16:50	78338	RYL
Nitrobenzene	< 1.	1.	mg/L	11/24/12 16:50	78338	RYL
o-Cresol	< 100.	100.	mg/L	11/24/12 16:50	78338	RYL
Pentachlorophenol	< 50.	50.	mg/L	11/24/12 16:50	78338	RYL
Pyridine	< 2.5	2.5	mg/L	11/24/12 16:50	78338	RYL
Cresols, total	< 100.	100.	mg/L	11/24/12 16:50	78338	RYL
<b>Volatile Organic Compounds, TCLP</b>						
<b>Method: SW1311 / SW8260B / SW5030A</b>						
1,1-Dichloroethene	< 0.35	0.35	mg/L	11/20/12 14:26	78301	XN
1,2-Dichloroethane	< 0.25	0.25	mg/L	11/20/12 14:26	78301	XN
1,4-Dichlorobenzene	< 3.75	3.75	mg/L	11/20/12 14:26	78301	XN
2-Butanone	< 100.	100.	mg/L	11/20/12 14:26	78301	XN
Benzene	< 0.25	0.25	mg/L	11/20/12 14:26	78301	XN
Carbon tetrachloride	< 0.25	0.25	mg/L	11/20/12 14:26	78301	XN
Chlorobenzene	< 50.	50.	mg/L	11/20/12 14:26	78301	XN

**Qualifiers:** B - Analyte detected in the associated Method Blank  
E - Estimated  
H - Holding Time Exceeded  
C - Laboratory not accredited for this parameter

S - Spike Recovery outside accepted recovery limits  
R - RPD outside accepted recovery limits  
J - Analyte detected below quantitation limits

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## Report of Laboratory Analysis

**CLIENT:** Clean Harbors  
**Lab Order:** 12110446  
**Project:** Northside  
**Lab ID:** 12110446-08

**Client Sample ID:** LAB PACK PAD#67  
**Report Date:** 11/27/2012  
**Collection Date:** 11/13/2012  
**Matrix:** Liquid

Analyses	Result	EMT Reporting Limit	Units	Date Analyzed	Batch	Analyst
Chloroform	< 3.	3.	mg/L	11/20/12 14:26	78301	XN
Tetrachloroethene	< 0.35	0.35	mg/L	11/20/12 14:26	78301	XN
Trichloroethene	< 0.25	0.25	mg/L	11/20/12 14:26	78301	XN
Vinyl chloride	< 0.1	0.1	mg/L	11/20/12 14:26	78301	XN

### Qualifiers:

B - Analyte detected in the associated Method Blank  
E - Estimated  
H - Holding Time Exceeded  
C - Laboratory not accredited for this parameter

S - Spike Recovery outside accepted recovery limits  
R - RPD outside accepted recovery limits  
J - Analyte detected below quantitation limits

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## Report of Laboratory Analysis

**CLIENT:** Clean Harbors  
**Lab Order:** 12110446  
**Project:** Northside  
**Lab ID:** 12110446-09

**Client Sample ID:** PAD#59  
**Report Date:** 11/27/2012  
**Collection Date:** 11/13/2012  
**Matrix:** Liquid

Analyses	Result	EMT Reporting Limit	Units	Date Analyzed	Batch	Analyst
<b>Mercury, TCLP Extracted</b>						
Method: SW7470A / SW1311 / HG PREP						
Mercury	< 0.0005	0.0005	mg/L	11/19/12 12:01	78261	IG
<b>Metals, TCLP Extracted</b>						
Method: SW6020A / SW1311 / SW3015						
Arsenic	0.202	0.0312	mg/L	11/19/12 23:21	78246	AG
Barium	0.132	0.0312	mg/L	11/19/12 23:21	78246	AG
Cadmium	< 0.0063	0.0063	mg/L	11/19/12 23:21	78246	AG
Chromium	< 0.0438	0.0438	mg/L	11/19/12 23:21	78246	AG
Lead	< 0.0125	0.0125	mg/L	11/19/12 23:21	78246	AG
Selenium	< 0.112	0.112	mg/L	11/19/12 23:21	78246	AG
Silver	< 0.0125	0.0125	mg/L	11/19/12 23:21	78246	AG
<b>Semivolatile Organic Compounds, TCLP</b>						
Method: SW1311 / SW8270D / SW3510C						
1,4-Dichlorobenzene	< 3.75	3.75	mg/L	11/24/12 17:33	78338	RYL
2,4,5-Trichlorophenol	< 200.	200.	mg/L	11/24/12 17:33	78338	RYL
2,4,6-Trichlorophenol	< 1.	1.	mg/L	11/24/12 17:33	78338	RYL
2,4-Dinitrotoluene	< 0.065	0.065	mg/L	11/24/12 17:33	78338	RYL
Hexachlorobenzene	< 0.065	0.065	mg/L	11/24/12 17:33	78338	RYL
Hexachlorobutadiene	< 0.25	0.25	mg/L	11/24/12 17:33	78338	RYL
Hexachloroethane	< 1.5	1.5	mg/L	11/24/12 17:33	78338	RYL
m,p-Cresol	< 100.	100.	mg/L	11/24/12 17:33	78338	RYL
Nitrobenzene	< 1.	1.	mg/L	11/24/12 17:33	78338	RYL
o-Cresol	< 100.	100.	mg/L	11/24/12 17:33	78338	RYL
Pentachlorophenol	< 50.	50.	mg/L	11/24/12 17:33	78338	RYL
Pyridine	< 2.5	2.5	mg/L	11/24/12 17:33	78338	RYL
Cresols, total	< 100.	100.	mg/L	11/24/12 17:33	78338	RYL
<b>Volatile Organic Compounds, TCLP</b>						
Method: SW1311 / SW8260B / SW5030A						
1,1-Dichloroethene	< 0.35	0.35	mg/L	11/20/12 15:34	78301	XN
1,2-Dichloroethane	< 0.25	0.25	mg/L	11/20/12 15:34	78301	XN
1,4-Dichlorobenzene	< 3.75	3.75	mg/L	11/20/12 15:34	78301	XN
2-Butanone	< 100.	100.	mg/L	11/20/12 15:34	78301	XN
Benzene	< 0.25	0.25	mg/L	11/20/12 15:34	78301	XN
Carbon tetrachloride	< 0.25	0.25	mg/L	11/20/12 15:34	78301	XN
Chlorobenzene	< 50.	50.	mg/L	11/20/12 15:34	78301	XN

**Qualifiers:** B - Analyte detected in the associated Method Blank  
E - Estimated  
H - Holding Time Exceeded  
C - Laboratory not accredited for this parameter

S - Spike Recovery outside accepted recovery limits  
R - RPD outside accepted recovery limits  
J - Analyte detected below quantitation limits

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## Report of Laboratory Analysis

**CLIENT:** Clean Harbors  
**Lab Order:** 12110446  
**Project:** Northside  
**Lab ID:** 12110446-09

**Client Sample ID:** PAD#59  
**Report Date:** 11/27/2012  
**Collection Date:** 11/13/2012  
**Matrix:** Liquid

Analyses	Result	EMT Reporting Limit	Units	Date Analyzed	Batch	Analyst
Chloroform	< 3.	3.	mg/L	11/20/12 15:34	78301	XN
Tetrachloroethene	< 0.35	0.35	mg/L	11/20/12 15:34	78301	XN
Trichloroethene	< 0.25	0.25	mg/L	11/20/12 15:34	78301	XN
Vinyl chloride	< 0.1	0.1	mg/L	11/20/12 15:34	78301	XN

**Qualifiers:** B - Analyte detected in the associated Method Blank  
E - Estimated  
H - Holding Time Exceeded  
C - Laboratory not accredited for this parameter

S - Spike Recovery outside accepted recovery limits  
R - RPD outside accepted recovery limits  
J - Analyte detected below quantitation limits

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## Report of Laboratory Analysis

**CLIENT:** Clean Harbors  
**Lab Order:** 12110446  
**Project:** Northside  
**Lab ID:** 12110446-10

**Client Sample ID:** RAIL CAR SPUR  
**Report Date:** 11/27/2012  
**Collection Date:** 11/13/2012  
**Matrix:** Liquid

Analyses	Result	EMT Reporting Limit	Units	Date Analyzed	Batch	Analyst
<b>Mercury, TCLP Extracted</b>						
		<b>Method: SW7470A / SW1311 / HG PREP</b>				
Mercury	< 0.0005	0.0005	mg/L	11/19/12 12:01	78261	IG
<b>Metals, TCLP Extracted</b>						
		<b>Method: SW6020A / SW1311 / SW3015</b>				
Arsenic	< 0.0312	0.0312	mg/L	11/20/12	78246	AG
Barium	0.0824	0.0312	mg/L	11/20/12	78246	AG
Cadmium	< 0.0063	0.0063	mg/L	11/20/12	78246	AG
Chromium	< 0.0438	0.0438	mg/L	11/20/12	78246	AG
Lead	< 0.0125	0.0125	mg/L	11/20/12	78246	AG
Selenium	< 0.112	0.112	mg/L	11/20/12	78246	AG
Silver	< 0.0125	0.0125	mg/L	11/20/12	78246	AG
<b>Semivolatile Organic Compounds, TCLP</b>						
		<b>Method: SW1311 / SW8270D / SW3510C</b>				
1,4-Dichlorobenzene	< 3.75	3.75	mg/L	11/24/12 18:17	78338	RYL
2,4,5-Trichlorophenol	< 200.	200.	mg/L	11/24/12 18:17	78338	RYL
2,4,6-Trichlorophenol	< 1.	1.	mg/L	11/24/12 18:17	78338	RYL
2,4-Dinitrotoluene	< 0.065	0.065	mg/L	11/24/12 18:17	78338	RYL
Hexachlorobenzene	< 0.065	0.065	mg/L	11/24/12 18:17	78338	RYL
Hexachlorobutadiene	< 0.25	0.25	mg/L	11/24/12 18:17	78338	RYL
Hexachloroethane	< 1.5	1.5	mg/L	11/24/12 18:17	78338	RYL
m,p-Cresol	< 100.	100.	mg/L	11/24/12 18:17	78338	RYL
Nitrobenzene	< 1.	1.	mg/L	11/24/12 18:17	78338	RYL
o-Cresol	< 100.	100.	mg/L	11/24/12 18:17	78338	RYL
Pentachlorophenol	< 50.	50.	mg/L	11/24/12 18:17	78338	RYL
Pyridine	< 2.5	2.5	mg/L	11/24/12 18:17	78338	RYL
Cresols, total	< 100.	100.	mg/L	11/24/12 18:17	78338	RYL
<b>Volatile Organic Compounds, TCLP</b>						
		<b>Method: SW1311 / SW8260B / SW5030A</b>				
1,1-Dichloroethene	< 0.35	0.35	mg/L	11/20/12 16:41	78301	XN
1,2-Dichloroethane	< 0.25	0.25	mg/L	11/20/12 16:41	78301	XN
1,4-Dichlorobenzene	< 3.75	3.75	mg/L	11/20/12 16:41	78301	XN
2-Butanone	< 100.	100.	mg/L	11/20/12 16:41	78301	XN
Benzene	< 0.25	0.25	mg/L	11/20/12 16:41	78301	XN
Carbon tetrachloride	< 0.25	0.25	mg/L	11/20/12 16:41	78301	XN
Chlorobenzene	< 50.	50.	mg/L	11/20/12 16:41	78301	XN

**Qualifiers:** B - Analyte detected in the associated Method Blank  
E - Estimated  
H - Holding Time Exceeded  
C - Laboratory not accredited for this parameter

S - Spike Recovery outside accepted recovery limits  
R - RPD outside accepted recovery limits  
J - Analyte detected below quantitation limits

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## Report of Laboratory Analysis

**CLIENT:** Clean Harbors  
**Lab Order:** 12110446  
**Project:** Northside  
**Lab ID:** 12110446-10

**Client Sample ID:** RAIL CAR SPUR  
**Report Date:** 11/27/2012  
**Collection Date:** 11/13/2012  
**Matrix:** Liquid

Analyses	Result	EMT Reporting Limit	Units	Date Analyzed	Batch	Analyst
Chloroform	< 3.	3.	mg/L	11/20/12 16:41	78301	XN
Tetrachloroethene	< 0.35	0.35	mg/L	11/20/12 16:41	78301	XN
Trichloroethene	< 0.25	0.25	mg/L	11/20/12 16:41	78301	XN
Vinyl chloride	< 0.1	0.1	mg/L	11/20/12 16:41	78301	XN

**Qualifiers:** B - Analyte detected in the associated Method Blank  
E - Estimated  
H - Holding Time Exceeded  
C - Laboratory not accredited for this parameter

S - Spike Recovery outside accepted recovery limits  
R - RPD outside accepted recovery limits  
J - Analyte detected below quantitation limits

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Jim Laubsted  
Clean Harbors  
11800 South Stony Island Avenue  
Chicago, IL 60617

September 05, 2012

RE Rinse Water Pagasis

Lab Orders:  
12080858

Dear Mr. Jim Laubsted:

Enclosed are the analytical reports for the EMT Lab Order listed. Also included with this analytical report is a copy of the chain of custody associated with these samples. If you have any questions, please contact me at 847-967-6666.

Sincerely,

Joe Pavilonis  
Project Manager

Approved by,

Marilyn Krueding  
Laboratory Director

This Report Contains 7 pages

The Contents of this report apply to the sample(s) analyzed. No duplication is allowed except in its entirety.

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State of Wisconsin, WDNR Accredited Lab No. 999888890

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**CLIENT:** Clean Harbors  
**Project:** Rinse Water Pagasis  
**Lab Order:** 12080858

**Date:** 9/5/2012

## CASE NARRATIVE

Unless otherwise noted, samples were analyzed using the methods outlined in the following references:

Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, SW846, 3rd Edition

Unless otherwise noted, all method blanks, laboratory spikes, and/or matrix spikes met quality assurance objectives.

Sample results relate only to the analytes of interest tested and to the sample received at the laboratory.

All results are reported on a wet weight basis, unless otherwise noted. Dry weight adjusted results, reporting limits, method detection limits and dilution factors are indicated by the notation "dry" in the Units column. If present, a dilution factor will adjust the method detection limits and reporting limits.

The test results contained in this report meet all of the requirements of NELAC. Accreditation by the State of Illinois or Wisconsin is not an endorsement or a guarantee of the validity of data generated. For specific information regarding EMT's scope of accreditation, please contact your EMT project manager.

The Reporting Limit listed on the Report of Laboratory Analysis is EMT's reporting limit for the analyte reported. For most test methods this reporting limit is primarily based upon the lowest point in the calibration curve.

Analyst's initials of "OUT" indicate that the analyte was analyzed by a subcontracted laboratory.

### Method References:

SW=USEPA, Test Methods for Evaluating Solid Waste, SW-846.

E=USEPA Methods for the Determination of Inorganic Substances in Environmental Samples; Methods for Chemical Analysis of Water and Wastes; Methods for Organic Chemical Analysis of Municipal and Industrial Wastewater, 40 CFR Part 136, App A; methods for the Determination of Metals in Environmental Samples; Methods for the Determination of Organic Compounds in Drinking Water.

SM= APHA, Standard Methods for the Examination of Water and Wastewater.

D=ASTM, Annual Book of Standards

Batch numbers starting with a letter indicate an analytical batch while those that are exclusively numerals indicate a preparation batch.

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## Report of Laboratory Analysis

**CLIENT:** Clean Harbors  
**Lab Order:** 12080858  
**Project:** Rinse Water Pagasis  
**Lab ID:** 12080858-01

**Client Sample ID:** SMALL TANK  
**Report Date:** 9/5/2012  
**Collection Date:** 8/27/2012  
**Matrix:** Liquid

Analyses	Result	EMT Reporting Limit	Units	Date Analyzed	Batch	Analyst
<b>ICP Metals, TCLP Extracted</b> Method: SW6010C / SW1311 / SW3015						
Arsenic	< 0.0625	0.0625	mg/L	8/31/12 11:08	76457	AG
Barium	0.227	0.0625	mg/L	8/31/12 11:08	76457	AG
Cadmium	0.104	0.0625	mg/L	8/31/12 11:08	76457	AG
Chromium	< 0.0625	0.0625	mg/L	8/31/12 11:08	76457	AG
Lead	< 0.0625	0.0625	mg/L	8/31/12 11:08	76457	AG
Selenium	< 0.0625	0.0625	mg/L	8/31/12 11:08	76457	AG
Silver	< 0.0625	0.0625	mg/L	8/31/12 11:08	76457	AG
<b>Mercury, TCLP Extracted</b> Method: SW7470A / SW1311 / HG PREP						
Mercury	0.00052	0.0005	mg/L	9/4/12 00:22	76499	ML3
<b>Pesticides, TCLP</b> Method: SW1311 / SW8081 / SW3510C						
Chlordane	< 0.03	0.03	mg/L	8/31/12 13:41	76390	LP
Endrin	< 0.02	0.02	mg/L	8/31/12 13:41	76390	LP
gamma-BHC	< 0.4	0.4	mg/L	8/31/12 13:41	76390	LP
Heptachlor	< 0.006	0.006	mg/L	8/31/12 13:41	76390	LP
Heptachlor epoxide	< 0.002	0.002	mg/L	8/31/12 13:41	76390	LP
Methoxychlor	< 10.	10.	mg/L	8/31/12 13:41	76390	LP
Toxaphene	< 0.5	0.5	mg/L	8/31/12 13:41	76390	LP
<b>Surrogates:</b>						
2,4,5,6-Tetrachloro-m-xylene	33.0	21.2-83.3	%REC	8/31/12 13:41	76390	LP
Decachlorobiphenyl	74.0	5-198	%REC	8/31/12 13:41	76390	LP
<b>Semivolatile Organic Compounds, TCLP</b> Method: SW1311 / SW8270D / SW3510C						
1,4-Dichlorobenzene	< 3.75	3.75	mg/L	8/30/12 19:28	76430	RYL
2,4,5-Trichlorophenol	< 200.	200.	mg/L	8/30/12 19:28	76430	RYL
2,4,6-Trichlorophenol	< 1.	1.	mg/L	8/30/12 19:28	76430	RYL
2,4-Dinitrotoluene	< 0.065	0.065	mg/L	8/30/12 19:28	76430	RYL
Hexachlorobenzene	< 0.065	0.065	mg/L	8/30/12 19:28	76430	RYL
Hexachlorobutadiene	< 0.25	0.25	mg/L	8/30/12 19:28	76430	RYL
Hexachloroethane	< 1.5	1.5	mg/L	8/30/12 19:28	76430	RYL
m,p-Cresol	< 100.	100.	mg/L	8/30/12 19:28	76430	RYL
Nitrobenzene	< 1.	1.	mg/L	8/30/12 19:28	76430	RYL
o-Cresol	< 100.	100.	mg/L	8/30/12 19:28	76430	RYL

**Qualifiers:** B - Analyte detected in the associated Method Blank  
E - Estimated  
H - Holding Time Exceeded

S - Spike Recovery outside accepted recovery limits  
R - RPD outside accepted recovery limits  
J - Analyte detected below quantitation limits

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## Report of Laboratory Analysis

**CLIENT:** Clean Harbors  
**Lab Order:** 12080858  
**Project:** Rinse Water Pagasis  
**Lab ID:** 12080858-01

**Client Sample ID:** SMALL TANK  
**Report Date:** 9/5/2012  
**Collection Date:** 8/27/2012  
**Matrix:** Liquid

Analyses	Result	EMT Reporting Limit	Units	Date Analyzed	Batch	Analyst
Pentachlorophenol	< 50.	50.	mg/L	8/30/12 19:28	76430	RYL
Pyridine	< 2.5	2.5	mg/L	8/30/12 19:28	76430	RYL
Cresols, total	< 100.	100.	mg/L	8/30/12 19:28	76430	RYL
<b>Surrogates:</b>						
2,4,6-Tribromophenol	68.9	40-125	%REC	8/30/12 19:28	76430	RYL
2-Fluorobiphenyl	51.8	50-110	%REC	8/30/12 19:28	76430	RYL
2-Fluorophenol	43.8	20-110	%REC	8/30/12 19:28	76430	RYL
Nitrobenzene-d5	49.4	40-110	%REC	8/30/12 19:28	76430	RYL
Phenol-d5	47.4	10-115	%REC	8/30/12 19:28	76430	RYL
<b>Volatile Organic Compounds, TCLP</b>						
<b>Method:</b> SW1311 / SW8260B / SW5030A						
1,1-Dichloroethene	< 0.35	0.35	mg/L	8/31/12 03:59	76434	XN
1,2-Dichloroethane	< 0.25	0.25	mg/L	8/31/12 03:59	76434	XN
1,4-Dichlorobenzene	< 3.75	3.75	mg/L	8/31/12 03:59	76434	XN
2-Butanone	< 100.	100.	mg/L	8/31/12 16:01	76475	JL
Benzene	< 0.25	0.25	mg/L	8/31/12 03:59	76434	XN
Carbon tetrachloride	< 0.25	0.25	mg/L	8/31/12 03:59	76434	XN
Chlorobenzene	< 50.	50.	mg/L	8/31/12 03:59	76434	XN
Chloroform	< 3.	3.	mg/L	8/31/12 16:01	76475	JL
Tetrachloroethene	< 0.35	0.35	mg/L	8/31/12 03:59	76434	XN
Trichloroethene	< 0.25	0.25	mg/L	8/31/12 03:59	76434	XN
Vinyl chloride	< 0.1	0.1	mg/L	8/31/12 03:59	76434	XN
<b>Surrogates:</b>						
1,2-Dichloroethane-d4	112	70-120	%REC	8/31/12 03:59	76434	XN
4-Bromofluorobenzene	102	75-120	%REC	8/31/12 03:59	76434	XN
d4-1,2-Dichlorobenzene	104	80-120	%REC	8/31/12 03:59	76434	XN
Dibromofluoromethane	120	85-115	S %REC	8/31/12 03:59	76434	XN
Fluorobenzene	89.0	80-120	%REC	8/31/12 03:59	76434	XN
Toluene-d8	86.4	85-120	%REC	8/31/12 03:59	76434	XN

**Qualifiers:** B - Analyte detected in the associated Method Blank  
E - Estimated  
H - Holding Time Exceeded

S - Spike Recovery outside accepted recovery limits  
R - RPD outside accepted recovery limits  
J - Analyte detected below quantitation limits

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## Report of Laboratory Analysis

**CLIENT:** Clean Harbors  
**Lab Order:** 12080858  
**Project:** Rinse Water Pagasis  
**Lab ID:** 12080858-02

**Client Sample ID:** LARGE TANK  
**Report Date:** 9/5/2012  
**Collection Date:** 8/27/2012  
**Matrix:** Liquid

Analyses	Result	EMT Reporting Limit	Units	Date Analyzed	Batch	Analyst
<b>ICP Metals, TCLP Extracted</b>						
		<b>Method: SW6010C / SW1311 / SW3015</b>				
Arsenic	< 0.0625	0.0625	mg/L	8/31/12 11:08	76457	AG
Barium	0.162	0.0625	mg/L	8/31/12 11:08	76457	AG
Cadmium	< 0.0625	0.0625	mg/L	8/31/12 11:08	76457	AG
Chromium	< 0.0625	0.0625	mg/L	8/31/12 11:08	76457	AG
Lead	< 0.0625	0.0625	mg/L	8/31/12 11:08	76457	AG
Selenium	< 0.0625	0.0625	mg/L	8/31/12 11:08	76457	AG
Silver	< 0.0625	0.0625	mg/L	8/31/12 11:08	76457	AG
<b>Mercury, TCLP Extracted</b>						
		<b>Method: SW7470A / SW1311 / HG PREP</b>				
Mercury	< 0.0005	0.0005	mg/L	9/4/12 00:22	76499	ML3
<b>Pesticides, TCLP</b>						
		<b>Method: SW1311 / SW8081 / SW3510C</b>				
Chlordane	< 0.03	0.03	mg/L	8/31/12 14:32	76390	LP
Endrin	< 0.02	0.02	mg/L	8/31/12 14:32	76390	LP
gamma-BHC	< 0.4	0.4	mg/L	8/31/12 14:32	76390	LP
Heptachlor	< 0.006	0.006	mg/L	8/31/12 14:32	76390	LP
Heptachlor epoxide	< 0.002	0.002	mg/L	8/31/12 14:32	76390	LP
Methoxychlor	< 10.	10.	mg/L	8/31/12 14:32	76390	LP
Toxaphene	< 0.5	0.5	mg/L	8/31/12 14:32	76390	LP
<b>Surrogates:</b>						
2,4,5,6-Tetrachloro-m-xylene	46.0	21.2-83.3	%REC	8/31/12 14:32	76390	LP
Decachlorobiphenyl	70.0	5-198	%REC	8/31/12 14:32	76390	LP
<b>Semivolatile Organic Compounds, TCLP</b>						
		<b>Method: SW1311 / SW8270D / SW3510C</b>				
1,4-Dichlorobenzene	< 3.75	3.75	mg/L	9/4/12 13:47	76430	RYL
2,4,5-Trichlorophenol	< 200.	200.	mg/L	9/4/12 13:47	76430	RYL
2,4,6-Trichlorophenol	< 1.	1.	mg/L	9/4/12 13:47	76430	RYL
2,4-Dinitrotoluene	< 0.065	0.065	mg/L	9/4/12 13:47	76430	RYL
Hexachlorobenzene	< 0.065	0.065	mg/L	9/4/12 13:47	76430	RYL
Hexachlorobutadiene	< 0.25	0.25	mg/L	9/4/12 13:47	76430	RYL
Hexachloroethane	< 1.5	1.5	mg/L	9/4/12 13:47	76430	RYL
m,p-Cresol	< 100.	100.	mg/L	9/4/12 13:47	76430	RYL
Nitrobenzene	< 1.	1.	mg/L	9/4/12 13:47	76430	RYL
o-Cresol	< 100.	100.	mg/L	9/4/12 13:47	76430	RYL

**Qualifiers:** B - Analyte detected in the associated Method Blank  
E - Estimated  
H - Holding Time Exceeded

S - Spike Recovery outside accepted recovery limits  
R - RPD outside accepted recovery limits  
J - Analyte detected below quantitation limits

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## Report of Laboratory Analysis

**CLIENT:** Clean Harbors  
**Lab Order:** 12080858  
**Project:** Rinse Water Pagasis  
**Lab ID:** 12080858-02

**Client Sample ID:** LARGE TANK  
**Report Date:** 9/5/2012  
**Collection Date:** 8/27/2012  
**Matrix:** Liquid

Analyses	Result	EMT Reporting Limit	Units	Date Analyzed	Batch	Analyst
Pentachlorophenol	< 50.	50.	mg/L	9/4/12 13:47	76430	RYL
Pyridine	< 2.5	2.5	mg/L	9/4/12 13:47	76430	RYL
Cresols, total	< 100.	100.	mg/L	9/4/12 13:47	76430	RYL
<b>Surrogates:</b>						
2,4,6-Tribromophenol	107	40-125	%REC	9/4/12 13:47	76430	RYL
2-Fluorobiphenyl	94.5	50-110	%REC	9/4/12 13:47	76430	RYL
2-Fluorophenol	82.9	20-110	%REC	9/4/12 13:47	76430	RYL
Nitrobenzene-d5	93.5	40-110	%REC	9/4/12 13:47	76430	RYL
Phenol-d5	77.4	10-115	%REC	9/4/12 13:47	76430	RYL
<b>Volatile Organic Compounds, TCLP</b>						
<b>Method: SW1311 / SW8260B / SW5030A</b>						
1,1-Dichloroethene	< 0.35	0.35	mg/L	8/31/12 03:29	76434	XN
1,2-Dichloroethane	< 0.25	0.25	mg/L	8/31/12 03:29	76434	XN
1,4-Dichlorobenzene	< 3.75	3.75	mg/L	8/31/12 03:29	76434	XN
2-Butanone	< 100.	100.	mg/L	8/31/12 03:29	76434	XN
Benzene	< 0.25	0.25	mg/L	8/31/12 03:29	76434	XN
Carbon tetrachloride	< 0.25	0.25	mg/L	8/31/12 03:29	76434	XN
Chlorobenzene	< 50.	50.	mg/L	8/31/12 03:29	76434	XN
Chloroform	< 3.	3.	mg/L	8/31/12 03:29	76434	XN
Tetrachloroethene	< 0.35	0.35	mg/L	8/31/12 03:29	76434	XN
Trichloroethene	< 0.25	0.25	mg/L	8/31/12 03:29	76434	XN
Vinyl chloride	< 0.1	0.1	mg/L	8/31/12 03:29	76434	XN
<b>Surrogates:</b>						
1,2-Dichloroethane-d4	111	70-120	%REC	8/31/12 03:29	76434	XN
4-Bromofluorobenzene	101	75-120	%REC	8/31/12 03:29	76434	XN
d4-1,2-Dichlorobenzene	106	80-120	%REC	8/31/12 03:29	76434	XN
Dibromofluoromethane	123	85-115	S %REC	8/31/12 03:29	76434	XN
Fluorobenzene	89.8	80-120	%REC	8/31/12 03:29	76434	XN
Toluene-d8	85.3	85-120	%REC	8/31/12 03:29	76434	XN

### Qualifiers:

B - Analyte detected in the associated Method Blank

E - Estimated

H - Holding Time Exceeded

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

J - Analyte detected below quantitation limits

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Jim Laubsted  
Clean Harbors  
11800 South Stony Island Avenue  
Chicago, IL 60617

December 11, 2012

RE Northside Plant

Lab Orders:  
12110851

Dear Mr. Jim Laubsted:

Enclosed are the analytical reports for the EMT Lab Order listed. Also included with this analytical report is a copy of the chain of custody associated with these samples. If you have any questions, please contact me at 847-967-6666.

Sincerely,

Joe Pavilonis  
Project Manager

Approved by,

Marilyn Krueding  
Laboratory Director

This Report Contains 18 pages

The Contents of this report apply to the sample(s) analyzed. No duplication is allowed except in its entirety.

State of Illinois, NELAC Accredited Lab. No. 100256  
State of Wisconsin, WDNR Accredited Lab No. 999888890

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**CLIENT:** Clean Harbors

**Date:** 12/11/2012

**Project:** Northside Plant

## CASE NARRATIVE

**Lab Order:** 12110851

Unless otherwise noted, samples were analyzed using the methods outlined in the following references:

Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, SW846, 3rd Edition

Unless otherwise noted, all method blanks, laboratory spikes, and/or matrix spikes met quality assurance objectives.

Sample results relate only to the analytes of interest tested and to the sample received at the laboratory.

All results are reported on a wet weight basis, unless otherwise noted. Dry weight adjusted results, reporting limits, method detection limits and dilution factors are indicated by the notation "dry" in the Units column. If present, a dilution factor will adjust the method detection limits and reporting limits.

The test results contained in this report meet all of the requirements of NELAC. Accreditation by the State of Illinois or Wisconsin is not an endorsement or a guarantee of the validity of data generated. For specific information regarding EMT's scope of accreditation, please contact your EMT project manager.

The Reporting Limit listed on the Report of Laboratory Analysis is EMT's reporting limit for the analyte reported. For most test methods this reporting limit is primarily based upon the lowest point in the calibration curve.

Analyst's initials of "OUT" indicate that the analyte was analyzed by a subcontracted laboratory.

### Method References:

SW=USEPA, Test Methods for Evaluating Solid Waste, SW-846.

E=USEPA Methods for the Determination of Inorganic Substances in Environmental Samples; Methods for Chemical Analysis of Water and Wastes; Methods for Organic Chemical Analysis of Municipal and Industrial Wastewater, 40 CFR Part 136, App A; methods for the Determination of Metals in Environmental Samples; Methods for the Determination of Organic Compounds in Drinking Water.

SM= APHA, Standard Methods for the Examination of Water and Wastewater.

D=ASTM, Annual Book of Standards

Batch numbers starting with a letter indicate an analytical batch while those that are exclusively numerals indicate a preparation batch.

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**CLIENT:** Clean Harbors

**Date:** 12/11/2012

**Project:** Northside Plant

## CASE NARRATIVE

**Lab Order:** 12110851

Prep Comments for 3510\_H, 12110851-01A, 02A, 03A, 04a, 05A, 06A, 07A: The prep HoldTime was exceeded by 9 days.

Prep Comments for 5030\_W, 12110851-06a: The prep HoldTime was exceeded by 1 days.

Prep Comments for 3510\_B, 12110851-01A, 03A: The prep HoldTime was exceeded by 9 days.

Prep Comments for 3510\_B, 12110851-02A, 05A, 07A: The prep HoldTime was exceeded by 8 days.

Prep Comments for 3510\_B, 12110851-04A, 06A: The prep HoldTime was exceeded by 7 days.

Analytical Comments for METHOD 1311\_8270NEW, 12110851-01A, 02A, 03A, 04A, 05A, 07A: 2,4,6-Tribromophenol surrogate recovery was below the limit.

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## Report of Laboratory Analysis

**CLIENT:** Clean Harbors  
**Lab Order:** 12110851  
**Project:** Northside Plant  
**Lab ID:** 12110851-01

**Client Sample ID:** DECON WATER#105  
**Report Date:** 12/11/2012  
**Collection Date:** 11/19/2012  
**Matrix:** Liquid

Analyses	Result	EMT Reporting Limit	Units	Date Analyzed	Batch	Analyst
<b>Mercury, TCLP Extracted</b>						
			<b>Method: SW7470A / SW1311 / HG PREP</b>			
Mercury	< 0.0005	0.0005	mg/L	12/3/12 13:08	78549	IG
<b>Metals, TCLP Extracted</b>						
			<b>Method: SW6020A / SW1311 / SW3015</b>			
Arsenic	< 0.0312	0.0312	mg/L	12/4/12 11:31	78554	AG
Barium	0.184	0.0312	mg/L	12/4/12 11:31	78554	AG
Cadmium	< 0.0063	0.0063	mg/L	12/4/12 11:31	78554	AG
Chromium	< 0.0438	0.0438	mg/L	12/4/12 11:31	78554	AG
Lead	< 0.0125	0.0125	mg/L	12/4/12 11:31	78554	AG
Selenium	< 0.112	0.112	mg/L	12/4/12 11:31	78554	AG
Silver	< 0.0125	0.0125	mg/L	12/4/12 11:31	78554	AG
<b>Acid Herbicides, TCLP</b>						
			<b>Method: SW1311 / SW8321A / SW3510C</b>			
2,4,5-TP (Silvex)	< 0.5	0.5	mg/L	12/6/12	78599	DLO
2,4-D	< 5.	5.	mg/L	12/6/12	78599	DLO
<b>Pesticides, TCLP</b>						
			<b>Method: SW1311 / SW8081 / SW3510C</b>			
Chlordane	< 0.03	0.03	mg/L	12/6/12 19:14	78598	LP
Endrin	< 0.02	0.02	mg/L	12/6/12 19:14	78598	LP
gamma-BHC	< 0.4	0.4	mg/L	12/6/12 19:14	78598	LP
Heptachlor	< 0.006	0.006	mg/L	12/6/12 19:14	78598	LP
Heptachlor epoxide	< 0.002	0.002	mg/L	12/6/12 19:14	78598	LP
Methoxychlor	< 10.	10.	mg/L	12/6/12 19:14	78598	LP
Toxaphene	< 0.5	0.5	mg/L	12/6/12 19:14	78598	LP
<b>Semivolatile Organic Compounds, TCLP</b>						
			<b>Method: SW1311 / SW8270D / SW3510C</b>			
1,4-Dichlorobenzene	< 3.75	3.75	mg/L	12/7/12 07:04	78610	RYL
2,4,5-Trichlorophenol	< 200.	200.	mg/L	12/7/12 07:04	78610	RYL
2,4,6-Trichlorophenol	< 1.	1.	mg/L	12/7/12 07:04	78610	RYL
2,4-Dinitrotoluene	< 0.065	0.065	mg/L	12/7/12 07:04	78610	RYL
Hexachlorobenzene	< 0.065	0.065	mg/L	12/7/12 07:04	78610	RYL
Hexachlorobutadiene	< 0.25	0.25	mg/L	12/7/12 07:04	78610	RYL
Hexachloroethane	< 1.5	1.5	mg/L	12/7/12 07:04	78610	RYL
m,p-Cresol	< 100.	100.	mg/L	12/7/12 07:04	78610	RYL
Nitrobenzene	< 1.	1.	mg/L	12/7/12 07:04	78610	RYL

**Qualifiers:** B - Analyte detected in the associated Method Blank  
E - Estimated  
H - Holding Time Exceeded

S - Spike Recovery outside accepted recovery limits  
R - RPD outside accepted recovery limits  
J - Analyte detected below quantitation limits

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## Report of Laboratory Analysis

**CLIENT:** Clean Harbors  
**Lab Order:** 12110851  
**Project:** Northside Plant  
**Lab ID:** 12110851-01

**Client Sample ID:** DECON WATER#105  
**Report Date:** 12/11/2012  
**Collection Date:** 11/19/2012  
**Matrix:** Liquid

Analyses	Result	EMT Reporting Limit	Units	Date Analyzed	Batch	Analyst
o-Cresol	< 100.	100.	mg/L	12/7/12 07:04	78610	RYL
Pentachlorophenol	< 50.	50.	mg/L	12/7/12 07:04	78610	RYL
Pyridine	< 2.5	2.5	mg/L	12/7/12 07:04	78610	RYL
Cresols, total	< 100.	100.	mg/L	12/7/12 07:04	78610	RYL
<b>Volatile Organic Compounds, TCLP</b>		<b>Method: SW1311 / SW8260B / SW5030A</b>				
1,1-Dichloroethene	< 0.35	0.35	mg/L	12/3/12 16:53	78537	XN
1,2-Dichloroethane	< 0.25	0.25	mg/L	12/3/12 16:53	78537	XN
1,4-Dichlorobenzene	< 3.75	3.75	mg/L	12/3/12 16:53	78537	XN
2-Butanone	< 100.	100.	mg/L	12/3/12 16:53	78537	XN
Benzene	< 0.25	0.25	mg/L	12/3/12 16:53	78537	XN
Carbon tetrachloride	< 0.25	0.25	mg/L	12/3/12 16:53	78537	XN
Chlorobenzene	< 50.	50.	mg/L	12/3/12 16:53	78537	XN
Chloroform	< 3.	3.	mg/L	12/3/12 16:53	78537	XN
Tetrachloroethene	< 0.35	0.35	mg/L	12/3/12 16:53	78537	XN
Trichloroethene	< 0.25	0.25	mg/L	12/3/12 16:53	78537	XN
Vinyl chloride	< 0.1	0.1	mg/L	12/3/12 16:53	78537	XN

**Qualifiers:** B - Analyte detected in the associated Method Blank  
E - Estimated  
H - Holding Time Exceeded

S - Spike Recovery outside accepted recovery limits  
R - RPD outside accepted recovery limits  
J - Analyte detected below quantitation limits

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## Report of Laboratory Analysis

**CLIENT:** Clean Harbors  
**Lab Order:** 12110851  
**Project:** Northside Plant  
**Lab ID:** 12110851-02

**Client Sample ID:** DECON WATER#106  
**Report Date:** 12/11/2012  
**Collection Date:** 11/20/2012  
**Matrix:** Liquid

Analyses	Result	EMT Reporting Limit	Units	Date Analyzed	Batch	Analyst
<b>Mercury, TCLP Extracted</b>						
		<b>Method: SW7470A / SW1311 / HG PREP</b>				
Mercury	< 0.0005	0.0005	mg/L	12/3/12 13:08	78549	IG
<b>Metals, TCLP Extracted</b>						
		<b>Method: SW6020A / SW1311 / SW3015</b>				
Arsenic	< 0.0312	0.0312	mg/L	12/4/12 11:31	78554	AG
Barium	0.143	0.0312	mg/L	12/4/12 11:31	78554	AG
Cadmium	< 0.0063	0.0063	mg/L	12/4/12 11:31	78554	AG
Chromium	< 0.0438	0.0438	mg/L	12/4/12 11:31	78554	AG
Lead	< 0.0125	0.0125	mg/L	12/4/12 11:31	78554	AG
Selenium	< 0.112	0.112	mg/L	12/4/12 11:31	78554	AG
Silver	< 0.0125	0.0125	mg/L	12/4/12 11:31	78554	AG
<b>Acid Herbicides, TCLP</b>						
		<b>Method: SW1311/ SW8321A / SW3510C</b>				
2,4,5-TP (Silvex)	< 0.5	0.5	mg/L	12/6/12	78599	DLO
2,4-D	< 5.	5.	mg/L	12/6/12	78599	DLO
<b>Pesticides, TCLP</b>						
		<b>Method: SW1311 / SW8081 / SW3510C</b>				
Chlordane	< 0.03	0.03	mg/L	12/6/12 20:02	78598	LP
Endrin	< 0.02	0.02	mg/L	12/6/12 20:02	78598	LP
gamma-BHC	< 0.4	0.4	mg/L	12/6/12 20:02	78598	LP
Heptachlor	< 0.006	0.006	mg/L	12/6/12 20:02	78598	LP
Heptachlor epoxide	< 0.002	0.002	mg/L	12/6/12 20:02	78598	LP
Methoxychlor	< 10.	10.	mg/L	12/6/12 20:02	78598	LP
Toxaphene	< 0.5	0.5	mg/L	12/6/12 20:02	78598	LP
<b>Semivolatile Organic Compounds, TCLP</b>						
		<b>Method: SW1311 / SW8270D / SW3510C</b>				
1,4-Dichlorobenzene	< 3.75	3.75	mg/L	12/7/12 07:48	78610	RYL
2,4,5-Trichlorophenol	< 200.	200.	mg/L	12/7/12 07:48	78610	RYL
2,4,6-Trichlorophenol	< 1.	1.	mg/L	12/7/12 07:48	78610	RYL
2,4-Dinitrotoluene	< 0.065	0.065	mg/L	12/7/12 07:48	78610	RYL
Hexachlorobenzene	< 0.065	0.065	mg/L	12/7/12 07:48	78610	RYL
Hexachlorobutadiene	< 0.25	0.25	mg/L	12/7/12 07:48	78610	RYL
Hexachloroethane	< 1.5	1.5	mg/L	12/7/12 07:48	78610	RYL
m,p-Cresol	< 100.	100.	mg/L	12/7/12 07:48	78610	RYL
Nitrobenzene	< 1.	1.	mg/L	12/7/12 07:48	78610	RYL

**Qualifiers:** B - Analyte detected in the associated Method Blank  
E - Estimated  
H - Holding Time Exceeded

S - Spike Recovery outside accepted recovery limits  
R - RPD outside accepted recovery limits  
J - Analyte detected below quantitation limits

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## Report of Laboratory Analysis

**CLIENT:** Clean Harbors  
**Lab Order:** 12110851  
**Project:** Northside Plant  
**Lab ID:** 12110851-02

**Client Sample ID:** DECON WATER#106  
**Report Date:** 12/11/2012  
**Collection Date:** 11/20/2012  
**Matrix:** Liquid

Analyses	Result	EMT Reporting Limit	Units	Date Analyzed	Batch	Analyst
o-Cresol	< 100.	100.	mg/L	12/7/12 07:48	78610	RYL
Pentachlorophenol	< 50.	50.	mg/L	12/7/12 07:48	78610	RYL
Pyridine	< 2.5	2.5	mg/L	12/7/12 07:48	78610	RYL
Cresols, total	< 100.	100.	mg/L	12/7/12 07:48	78610	RYL
<b>Volatile Organic Compounds, TCLP</b>		<b>Method: SW1311 / SW8260B / SW5030A</b>				
1,1-Dichloroethene	< 0.35	0.35	mg/L	12/4/12 14:15	78567	XN
1,2-Dichloroethane	< 0.25	0.25	mg/L	12/4/12 14:15	78567	XN
1,4-Dichlorobenzene	< 3.75	3.75	mg/L	12/4/12 14:15	78567	XN
2-Butanone	< 100.	100.	mg/L	12/4/12 14:15	78567	XN
Benzene	< 0.25	0.25	mg/L	12/4/12 14:15	78567	XN
Carbon tetrachloride	< 0.25	0.25	mg/L	12/4/12 14:15	78567	XN
Chlorobenzene	< 50.	50.	mg/L	12/4/12 14:15	78567	XN
Chloroform	< 3.	3.	mg/L	12/4/12 14:15	78567	XN
Tetrachloroethene	< 0.35	0.35	mg/L	12/4/12 14:15	78567	XN
Trichloroethene	< 0.25	0.25	mg/L	12/4/12 14:15	78567	XN
Vinyl chloride	< 0.1	0.1	mg/L	12/4/12 14:15	78567	XN

### Qualifiers:

B - Analyte detected in the associated Method Blank

E - Estimated

H - Holding Time Exceeded

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

J - Analyte detected below quantitation limits

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## Report of Laboratory Analysis

**CLIENT:** Clean Harbors  
**Lab Order:** 12110851  
**Project:** Northside Plant  
**Lab ID:** 12110851-03

**Client Sample ID:** DECON WATER#107  
**Report Date:** 12/11/2012  
**Collection Date:** 11/19/2012  
**Matrix:** Liquid

Analyses	Result	EMT Reporting Limit	Units	Date Analyzed	Batch	Analyst
<b>Mercury, TCLP Extracted</b>						
		<b>Method: SW7470A / SW1311 / HG PREP</b>				
Mercury	< 0.0005	0.0005	mg/L	12/3/12 13:08	78549	IG
<b>Metals, TCLP Extracted</b>						
		<b>Method: SW6020A / SW1311 / SW3015</b>				
Arsenic	< 0.0312	0.0312	mg/L	12/4/12 11:31	78554	AG
Barium	0.126	0.0312	mg/L	12/4/12 11:31	78554	AG
Cadmium	< 0.0063	0.0063	mg/L	12/4/12 11:31	78554	AG
Chromium	< 0.0438	0.0438	mg/L	12/4/12 11:31	78554	AG
Lead	< 0.0125	0.0125	mg/L	12/4/12 11:31	78554	AG
Selenium	< 0.112	0.112	mg/L	12/4/12 11:31	78554	AG
Silver	< 0.0125	0.0125	mg/L	12/4/12 11:31	78554	AG
<b>Acid Herbicides, TCLP</b>						
		<b>Method: SW1311 / SW8321A / SW3510C</b>				
2,4,5-TP (Silvex)	< 0.5	0.5	mg/L	12/6/12	78599	DLO
2,4-D	< 5.	5.	mg/L	12/6/12	78599	DLO
<b>Pesticides, TCLP</b>						
		<b>Method: SW1311 / SW8081 / SW3510C</b>				
Chlordane	< 0.03	0.03	mg/L	12/6/12 20:49	78598	LP
Endrin	< 0.02	0.02	mg/L	12/6/12 20:49	78598	LP
gamma-BHC	< 0.4	0.4	mg/L	12/6/12 20:49	78598	LP
Heptachlor	< 0.006	0.006	mg/L	12/6/12 20:49	78598	LP
Heptachlor epoxide	< 0.002	0.002	mg/L	12/6/12 20:49	78598	LP
Methoxychlor	< 10.	10.	mg/L	12/6/12 20:49	78598	LP
Toxaphene	< 0.5	0.5	mg/L	12/6/12 20:49	78598	LP
<b>Semivolatile Organic Compounds, TCLP</b>						
		<b>Method: SW1311 / SW8270D / SW3510C</b>				
1,4-Dichlorobenzene	< 3.75	3.75	mg/L	12/7/12 08:31	78610	RYL
2,4,5-Trichlorophenol	< 200.	200.	mg/L	12/7/12 08:31	78610	RYL
2,4,6-Trichlorophenol	< 1.	1.	mg/L	12/7/12 08:31	78610	RYL
2,4-Dinitrotoluene	< 0.065	0.065	mg/L	12/7/12 08:31	78610	RYL
Hexachlorobenzene	< 0.065	0.065	mg/L	12/7/12 08:31	78610	RYL
Hexachlorobutadiene	< 0.25	0.25	mg/L	12/7/12 08:31	78610	RYL
Hexachloroethane	< 1.5	1.5	mg/L	12/7/12 08:31	78610	RYL
m,p-Cresol	< 100.	100.	mg/L	12/7/12 08:31	78610	RYL
Nitrobenzene	< 1.	1.	mg/L	12/7/12 08:31	78610	RYL

**Qualifiers:** B - Analyte detected in the associated Method Blank  
E - Estimated  
H - Holding Time Exceeded

S - Spike Recovery outside accepted recovery limits  
R - RPD outside accepted recovery limits  
J - Analyte detected below quantitation limits

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## Report of Laboratory Analysis

**CLIENT:** Clean Harbors  
**Lab Order:** 12110851  
**Project:** Northside Plant  
**Lab ID:** 12110851-03

**Client Sample ID:** DECON WATER#107  
**Report Date:** 12/11/2012  
**Collection Date:** 11/19/2012  
**Matrix:** Liquid

Analyses	Result	EMT Reporting Limit	Units	Date Analyzed	Batch	Analyst
o-Cresol	< 100.	100.	mg/L	12/7/12 08:31	78610	RYL
Pentachlorophenol	< 50.	50.	mg/L	12/7/12 08:31	78610	RYL
Pyridine	< 2.5	2.5	mg/L	12/7/12 08:31	78610	RYL
Cresols, total	< 100.	100.	mg/L	12/7/12 08:31	78610	RYL

### Volatile Organic Compounds, TCLP

**Method:** SW1311 / SW8260B / SW5030A

1,1-Dichloroethene	< 0.35	0.35	mg/L	12/3/12 17:27	78537	XN
1,2-Dichloroethane	< 0.25	0.25	mg/L	12/3/12 17:27	78537	XN
1,4-Dichlorobenzene	< 3.75	3.75	mg/L	12/3/12 17:27	78537	XN
2-Butanone	< 100.	100.	mg/L	12/3/12 17:27	78537	XN
Benzene	< 0.25	0.25	mg/L	12/3/12 17:27	78537	XN
Carbon tetrachloride	< 0.25	0.25	mg/L	12/3/12 17:27	78537	XN
Chlorobenzene	< 50.	50.	mg/L	12/3/12 17:27	78537	XN
Chloroform	< 3.	3.	mg/L	12/3/12 17:27	78537	XN
Tetrachloroethene	< 0.35	0.35	mg/L	12/3/12 17:27	78537	XN
Trichloroethene	< 0.25	0.25	mg/L	12/3/12 17:27	78537	XN
Vinyl chloride	< 0.1	0.1	mg/L	12/3/12 17:27	78537	XN

### Qualifiers:

B - Analyte detected in the associated Method Blank

E - Estimated

H - Holding Time Exceeded

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

J - Analyte detected below quantitation limits

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## Report of Laboratory Analysis

**CLIENT:** Clean Harbors  
**Lab Order:** 12110851  
**Project:** Northside Plant  
**Lab ID:** 12110851-04

**Client Sample ID:** DECON WATER#109  
**Report Date:** 12/11/2012  
**Collection Date:** 11/21/2012  
**Matrix:** Liquid

Analyses	Result	EMT Reporting Limit	Units	Date Analyzed	Batch	Analyst
<b>Mercury, TCLP Extracted</b>						
		<b>Method: SW7470A / SW1311 / HG PREP</b>				
Mercury	< 0.0005	0.0005	mg/L	12/3/12 13:08	78549	IG
<b>Metals, TCLP Extracted</b>						
		<b>Method: SW6020A / SW1311 / SW3015</b>				
Arsenic	< 0.0312	0.0312	mg/L	12/4/12 11:31	78554	AG
Barium	0.12	0.0312	mg/L	12/4/12 11:31	78554	AG
Cadmium	< 0.0063	0.0063	mg/L	12/4/12 11:31	78554	AG
Chromium	< 0.0438	0.0438	mg/L	12/4/12 11:31	78554	AG
Lead	< 0.0125	0.0125	mg/L	12/4/12 11:31	78554	AG
Selenium	< 0.112	0.112	mg/L	12/4/12 11:31	78554	AG
Silver	< 0.0125	0.0125	mg/L	12/4/12 11:31	78554	AG
<b>Acid Herbicides, TCLP</b>						
		<b>Method: SW1311 / SW8321A / SW3510C</b>				
2,4,5-TP (Silvex)	< 0.5	0.5	mg/L	12/6/12	78599	DLO
2,4-D	< 5.	5.	mg/L	12/6/12	78599	DLO
<b>Pesticides, TCLP</b>						
		<b>Method: SW1311 / SW8081 / SW3510C</b>				
Chlordane	< 0.03	0.03	mg/L	12/6/12 21:36	78598	LP
Endrin	< 0.02	0.02	mg/L	12/6/12 21:36	78598	LP
gamma-BHC	< 0.4	0.4	mg/L	12/6/12 21:36	78598	LP
Heptachlor	< 0.006	0.006	mg/L	12/6/12 21:36	78598	LP
Heptachlor epoxide	< 0.002	0.002	mg/L	12/6/12 21:36	78598	LP
Methoxychlor	< 10.	10.	mg/L	12/6/12 21:36	78598	LP
Toxaphene	< 0.5	0.5	mg/L	12/6/12 21:36	78598	LP
<b>Semivolatile Organic Compounds, TCLP</b>						
		<b>Method: SW1311 / SW8270D / SW3510C</b>				
1,4-Dichlorobenzene	< 3.75	3.75	mg/L	12/7/12 09:15	78610	RYL
2,4,5-Trichlorophenol	< 200.	200.	mg/L	12/7/12 09:15	78610	RYL
2,4,6-Trichlorophenol	< 1.	1.	mg/L	12/7/12 09:15	78610	RYL
2,4-Dinitrotoluene	< 0.065	0.065	mg/L	12/7/12 09:15	78610	RYL
Hexachlorobenzene	< 0.065	0.065	mg/L	12/7/12 09:15	78610	RYL
Hexachlorobutadiene	< 0.25	0.25	mg/L	12/7/12 09:15	78610	RYL
Hexachloroethane	< 1.5	1.5	mg/L	12/7/12 09:15	78610	RYL
m,p-Cresol	< 100.	100.	mg/L	12/7/12 09:15	78610	RYL
Nitrobenzene	< 1.	1.	mg/L	12/7/12 09:15	78610	RYL

**Qualifiers:** B - Analyte detected in the associated Method Blank  
E - Estimated  
H - Holding Time Exceeded

S - Spike Recovery outside accepted recovery limits  
R - RPD outside accepted recovery limits  
J - Analyte detected below quantitation limits

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## Report of Laboratory Analysis

**CLIENT:** Clean Harbors  
**Lab Order:** 12110851  
**Project:** Northside Plant  
**Lab ID:** 12110851-04

**Client Sample ID:** DECON WATER#109  
**Report Date:** 12/11/2012  
**Collection Date:** 11/21/2012  
**Matrix:** Liquid

Analyses	Result	EMT Reporting Limit	Units	Date Analyzed	Batch	Analyst
o-Cresol	< 100.	100.	mg/L	12/7/12 09:15	78610	RYL
Pentachlorophenol	< 50.	50.	mg/L	12/7/12 09:15	78610	RYL
Pyridine	< 2.5	2.5	mg/L	12/7/12 09:15	78610	RYL
Cresols, total	< 100.	100.	mg/L	12/7/12 09:15	78610	RYL
<b>Volatile Organic Compounds, TCLP</b>						
<b>Method: SW1311 / SW8260B / SW5030A</b>						
1,1-Dichloroethene	< 0.35	0.35	mg/L	12/5/12 13:13	78605	XN
1,2-Dichloroethane	< 0.25	0.25	mg/L	12/5/12 13:13	78605	XN
1,4-Dichlorobenzene	< 3.75	3.75	mg/L	12/5/12 13:13	78605	XN
2-Butanone	< 100.	100.	mg/L	12/5/12 13:13	78605	XN
Benzene	< 0.25	0.25	mg/L	12/5/12 13:13	78605	XN
Carbon tetrachloride	< 0.25	0.25	mg/L	12/5/12 13:13	78605	XN
Chlorobenzene	< 50.	50.	mg/L	12/5/12 13:13	78605	XN
Chloroform	< 3.	3.	mg/L	12/5/12 13:13	78605	XN
Tetrachloroethene	< 0.35	0.35	mg/L	12/5/12 13:13	78605	XN
Trichloroethene	< 0.25	0.25	mg/L	12/5/12 13:13	78605	XN
Vinyl chloride	< 0.1	0.1	mg/L	12/5/12 13:13	78605	XN

### Qualifiers:

B - Analyte detected in the associated Method Blank

E - Estimated

H - Holding Time Exceeded

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

J - Analyte detected below quantitation limits

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## Report of Laboratory Analysis

**CLIENT:** Clean Harbors  
**Lab Order:** 12110851  
**Project:** Northside Plant  
**Lab ID:** 12110851-05

**Client Sample ID:** DECON WATER#110  
**Report Date:** 12/11/2012  
**Collection Date:** 11/20/2012  
**Matrix:** Liquid

Analyses	Result	EMT Reporting Limit	Units	Date Analyzed	Batch	Analyst
<b>Mercury, TCLP Extracted</b>						
		<b>Method: SW7470A / SW1311 / HG PREP</b>				
Mercury	< 0.0005	0.0005	mg/L	12/3/12 13:08	78549	IG
<b>Metals, TCLP Extracted</b>						
		<b>Method: SW6020A / SW1311 / SW3015</b>				
Arsenic	< 0.0312	0.0312	mg/L	12/4/12 11:31	78554	AG
Barium	0.0824	0.0312	mg/L	12/4/12 11:31	78554	AG
Cadmium	< 0.0063	0.0063	mg/L	12/4/12 11:31	78554	AG
Chromium	< 0.0438	0.0438	mg/L	12/4/12 11:31	78554	AG
Lead	< 0.0125	0.0125	mg/L	12/4/12 11:31	78554	AG
Selenium	< 0.112	0.112	mg/L	12/4/12 11:31	78554	AG
Silver	< 0.0125	0.0125	mg/L	12/4/12 11:31	78554	AG
<b>Acid Herbicides, TCLP</b>						
		<b>Method: SW1311 / SW8321A / SW3510C</b>				
2,4,5-TP (Silvex)	< 0.5	0.5	mg/L	12/6/12	78599	DLO
2,4-D	< 5.	5.	mg/L	12/6/12	78599	DLO
<b>Pesticides, TCLP</b>						
		<b>Method: SW1311 / SW8081 / SW3510C</b>				
Chlordane	< 0.03	0.03	mg/L	12/6/12 13:43	78598	LP
Endrin	< 0.02	0.02	mg/L	12/6/12 13:43	78598	LP
gamma-BHC	< 0.4	0.4	mg/L	12/6/12 13:43	78598	LP
Heptachlor	< 0.006	0.006	mg/L	12/6/12 13:43	78598	LP
Heptachlor epoxide	< 0.002	0.002	mg/L	12/6/12 13:43	78598	LP
Methoxychlor	< 10.	10.	mg/L	12/6/12 13:43	78598	LP
Toxaphene	< 0.5	0.5	mg/L	12/6/12 13:43	78598	LP
<b>Semivolatile Organic Compounds, TCLP</b>						
		<b>Method: SW1311 / SW8270D / SW3510C</b>				
1,4-Dichlorobenzene	< 3.75	3.75	mg/L	12/7/12 09:59	78610	RYL
2,4,5-Trichlorophenol	< 200.	200.	mg/L	12/7/12 09:59	78610	RYL
2,4,6-Trichlorophenol	< 1.	1.	mg/L	12/7/12 09:59	78610	RYL
2,4-Dinitrotoluene	< 0.065	0.065	mg/L	12/7/12 09:59	78610	RYL
Hexachlorobenzene	< 0.065	0.065	mg/L	12/7/12 09:59	78610	RYL
Hexachlorobutadiene	< 0.25	0.25	mg/L	12/7/12 09:59	78610	RYL
Hexachloroethane	< 1.5	1.5	mg/L	12/7/12 09:59	78610	RYL
m,p-Cresol	< 100.	100.	mg/L	12/7/12 09:59	78610	RYL
Nitrobenzene	< 1.	1.	mg/L	12/7/12 09:59	78610	RYL

**Qualifiers:** B - Analyte detected in the associated Method Blank  
E - Estimated  
H - Holding Time Exceeded

S - Spike Recovery outside accepted recovery limits  
R - RPD outside accepted recovery limits  
J - Analyte detected below quantitation limits

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## Report of Laboratory Analysis

**CLIENT:** Clean Harbors  
**Lab Order:** 12110851  
**Project:** Northside Plant  
**Lab ID:** 12110851-05

**Client Sample ID:** DECON WATER#110  
**Report Date:** 12/11/2012  
**Collection Date:** 11/20/2012  
**Matrix:** Liquid

Analyses	Result	EMT Reporting Limit	Units	Date Analyzed	Batch	Analyst
o-Cresol	< 100.	100.	mg/L	12/7/12 09:59	78610	RYL
Pentachlorophenol	< 50.	50.	mg/L	12/7/12 09:59	78610	RYL
Pyridine	< 2.5	2.5	mg/L	12/7/12 09:59	78610	RYL
Cresols, total	< 100.	100.	mg/L	12/7/12 09:59	78610	RYL
<b>Volatile Organic Compounds, TCLP</b>		<b>Method: SW1311 / SW8260B / SW5030A</b>				
1,1-Dichloroethene	< 0.35	0.35	mg/L	12/4/12 14:48	78567	XN
1,2-Dichloroethane	< 0.25	0.25	mg/L	12/4/12 14:48	78567	XN
1,4-Dichlorobenzene	< 3.75	3.75	mg/L	12/4/12 14:48	78567	XN
2-Butanone	< 100.	100.	mg/L	12/4/12 14:48	78567	XN
Benzene	< 0.25	0.25	mg/L	12/4/12 14:48	78567	XN
Carbon tetrachloride	< 0.25	0.25	mg/L	12/4/12 14:48	78567	XN
Chlorobenzene	< 50.	50.	mg/L	12/4/12 14:48	78567	XN
Chloroform	< 3.	3.	mg/L	12/4/12 14:48	78567	XN
Tetrachloroethene	< 0.35	0.35	mg/L	12/4/12 14:48	78567	XN
Trichloroethene	< 0.25	0.25	mg/L	12/4/12 14:48	78567	XN
Vinyl chloride	< 0.1	0.1	mg/L	12/4/12 14:48	78567	XN

### Qualifiers:

B - Analyte detected in the associated Method Blank

E - Estimated

H - Holding Time Exceeded

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

J - Analyte detected below quantitation limits

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## Report of Laboratory Analysis

**CLIENT:** Clean Harbors  
**Lab Order:** 12110851  
**Project:** Northside Plant  
**Lab ID:** 12110851-06

**Client Sample ID:** DECON WATER#112  
**Report Date:** 12/11/2012  
**Collection Date:** 11/21/2012  
**Matrix:** Liquid

Analyses	Result	EMT Reporting Limit	Units	Date Analyzed	Batch	Analyst
<b>Mercury, TCLP Extracted</b>						
<b>Method: SW7470A / SW1311 / HG PREP</b>						
Mercury	< 0.0005	0.0005	mg/L	12/3/12 13:08	78549	IG
<b>Metals, TCLP Extracted</b>						
<b>Method: SW6020A / SW1311 / SW3015</b>						
Arsenic	< 0.0312	0.0312	mg/L	12/4/12 11:31	78554	AG
Barium	0.124	0.0312	mg/L	12/4/12 11:31	78554	AG
Cadmium	< 0.0063	0.0063	mg/L	12/4/12 11:31	78554	AG
Chromium	< 0.0438	0.0438	mg/L	12/4/12 11:31	78554	AG
Lead	< 0.0125	0.0125	mg/L	12/4/12 11:31	78554	AG
Selenium	< 0.112	0.112	mg/L	12/4/12 11:31	78554	AG
Silver	< 0.0125	0.0125	mg/L	12/4/12 11:31	78554	AG
<b>Acid Herbicides, TCLP</b>						
<b>Method: SW1311 / SW8321A / SW3510C</b>						
2,4,5-TP (Silvex)	< 0.5	0.5	mg/L	12/6/12	78599	DLO
2,4-D	< 5.	5.	mg/L	12/6/12	78599	DLO
<b>Pesticides, TCLP</b>						
<b>Method: SW1311 / SW8081 / SW3510C</b>						
Chlordane	< 0.03	0.03	mg/L	12/6/12 14:30	78598	LP
Endrin	< 0.02	0.02	mg/L	12/6/12 14:30	78598	LP
gamma-BHC	< 0.4	0.4	mg/L	12/6/12 14:30	78598	LP
Heptachlor	< 0.006	0.006	mg/L	12/6/12 14:30	78598	LP
Heptachlor epoxide	< 0.002	0.002	mg/L	12/6/12 14:30	78598	LP
Methoxychlor	< 10.	10.	mg/L	12/6/12 14:30	78598	LP
Toxaphene	< 0.5	0.5	mg/L	12/6/12 14:30	78598	LP
<b>Semivolatile Organic Compounds, TCLP</b>						
<b>Method: SW1311 / SW8270D / SW3510C</b>						
1,4-Dichlorobenzene	< 3.75	3.75	mg/L	12/7/12 10:42	78610	RYL
2,4,5-Trichlorophenol	< 200.	200.	mg/L	12/7/12 10:42	78610	RYL
2,4,6-Trichlorophenol	< 1.	1.	mg/L	12/7/12 10:42	78610	RYL
2,4-Dinitrotoluene	< 0.065	0.065	mg/L	12/7/12 10:42	78610	RYL
Hexachlorobenzene	< 0.065	0.065	mg/L	12/7/12 10:42	78610	RYL
Hexachlorobutadiene	< 0.25	0.25	mg/L	12/7/12 10:42	78610	RYL
Hexachloroethane	< 1.5	1.5	mg/L	12/7/12 10:42	78610	RYL
m,p-Cresol	< 100.	100.	mg/L	12/7/12 10:42	78610	RYL
Nitrobenzene	< 1.	1.	mg/L	12/7/12 10:42	78610	RYL

**Qualifiers:** B - Analyte detected in the associated Method Blank  
E - Estimated  
H - Holding Time Exceeded

S - Spike Recovery outside accepted recovery limits  
R - RPD outside accepted recovery limits  
J - Analyte detected below quantitation limits

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## Report of Laboratory Analysis

**CLIENT:** Clean Harbors  
**Lab Order:** 12110851  
**Project:** Northside Plant  
**Lab ID:** 12110851-06

**Client Sample ID:** DECON WATER#112  
**Report Date:** 12/11/2012  
**Collection Date:** 11/21/2012  
**Matrix:** Liquid

Analyses	Result	EMT Reporting Limit	Units	Date Analyzed	Batch	Analyst
o-Cresol	< 100.	100.	mg/L	12/7/12 10:42	78610	RYL
Pentachlorophenol	< 50.	50.	mg/L	12/7/12 10:42	78610	RYL
Pyridine	< 2.5	2.5	mg/L	12/7/12 10:42	78610	RYL
Cresols, total	< 100.	100.	mg/L	12/7/12 10:42	78610	RYL
<b>Volatile Organic Compounds, TCLP</b>						
<b>Method: SW1311 / SW8260B / SW5030A</b>						
1,1-Dichloroethene	< 0.35	0.35	mg/L	12/5/12 13:46	78605	XN
1,2-Dichloroethane	< 0.25	0.25	mg/L	12/5/12 13:46	78605	XN
1,4-Dichlorobenzene	< 3.75	3.75	mg/L	12/5/12 13:46	78605	XN
2-Butanone	< 100.	100.	mg/L	12/5/12 13:46	78605	XN
Benzene	< 0.25	0.25	mg/L	12/5/12 13:46	78605	XN
Carbon tetrachloride	< 0.25	0.25	mg/L	12/5/12 13:46	78605	XN
Chlorobenzene	< 50.	50.	mg/L	12/5/12 19:30	78615	JL
Chloroform	< 3.	3.	mg/L	12/5/12 13:46	78605	XN
Tetrachloroethene	< 0.35	0.35	mg/L	12/5/12 13:46	78605	XN
Trichloroethene	< 0.25	0.25	mg/L	12/5/12 13:46	78605	XN
Vinyl chloride	< 0.1	0.1	mg/L	12/5/12 13:46	78605	XN

**Qualifiers:** B - Analyte detected in the associated Method Blank  
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S - Spike Recovery outside accepted recovery limits  
R - RPD outside accepted recovery limits  
J - Analyte detected below quantitation limits

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## Report of Laboratory Analysis

**CLIENT:** Clean Harbors  
**Lab Order:** 12110851  
**Project:** Northside Plant  
**Lab ID:** 12110851-07

**Client Sample ID:** BUILDING#25  
**Report Date:** 12/11/2012  
**Collection Date:** 11/20/2012  
**Matrix:** Liquid

Analyses	Result	EMT Reporting Limit	Units	Date Analyzed	Batch	Analyst
<b>Mercury, TCLP Extracted</b>						
		<b>Method: SW7470A / SW1311 / HG PREP</b>				
Mercury	< 0.0005	0.0005	mg/L	12/3/12 13:08	78549	IG
<b>Metals, TCLP Extracted</b>						
		<b>Method: SW6020A / SW1311 / SW3015</b>				
Arsenic	< 0.0312	0.0312	mg/L	12/4/12 11:31	78554	AG
Barium	0.129	0.0312	mg/L	12/4/12 11:31	78554	AG
Cadmium	< 0.0063	0.0063	mg/L	12/4/12 11:31	78554	AG
Chromium	< 0.0438	0.0438	mg/L	12/4/12 11:31	78554	AG
Lead	< 0.0125	0.0125	mg/L	12/4/12 11:31	78554	AG
Selenium	< 0.112	0.112	mg/L	12/4/12 11:31	78554	AG
Silver	< 0.0125	0.0125	mg/L	12/4/12 11:31	78554	AG
<b>Acid Herbicides, TCLP</b>						
		<b>Method: SW1311 / SW8321A / SW3510C</b>				
2,4,5-TP (Silvex)	< 0.5	0.5	mg/L	12/6/12	78599	DLO
2,4-D	< 5.	5.	mg/L	12/6/12	78599	DLO
<b>Pesticides, TCLP</b>						
		<b>Method: SW1311 / SW8081 / SW3510C</b>				
Chlordane	< 0.03	0.03	mg/L	12/6/12 15:17	78598	LP
Endrin	< 0.02	0.02	mg/L	12/6/12 15:17	78598	LP
gamma-BHC	< 0.4	0.4	mg/L	12/6/12 15:17	78598	LP
Heptachlor	< 0.006	0.006	mg/L	12/6/12 15:17	78598	LP
Heptachlor epoxide	< 0.002	0.002	mg/L	12/6/12 15:17	78598	LP
Methoxychlor	< 10.	10.	mg/L	12/6/12 15:17	78598	LP
Toxaphene	< 0.5	0.5	mg/L	12/6/12 15:17	78598	LP
<b>Semivolatile Organic Compounds, TCLP</b>						
		<b>Method: SW1311 / SW8270D / SW3510C</b>				
1,4-Dichlorobenzene	< 3.75	3.75	mg/L	12/7/12 11:26	78610	RYL
2,4,5-Trichlorophenol	< 200.	200.	mg/L	12/7/12 11:26	78610	RYL
2,4,6-Trichlorophenol	< 1.	1.	mg/L	12/7/12 11:26	78610	RYL
2,4-Dinitrotoluene	< 0.065	0.065	mg/L	12/7/12 11:26	78610	RYL
Hexachlorobenzene	< 0.065	0.065	mg/L	12/7/12 11:26	78610	RYL
Hexachlorobutadiene	< 0.25	0.25	mg/L	12/7/12 11:26	78610	RYL
Hexachloroethane	< 1.5	1.5	mg/L	12/7/12 11:26	78610	RYL
m,p-Cresol	< 100.	100.	mg/L	12/7/12 11:26	78610	RYL
Nitrobenzene	< 1.	1.	mg/L	12/7/12 11:26	78610	RYL

**Qualifiers:** B - Analyte detected in the associated Method Blank  
E - Estimated  
H - Holding Time Exceeded

S - Spike Recovery outside accepted recovery limits  
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J - Analyte detected below quantitation limits

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## Report of Laboratory Analysis

**CLIENT:** Clean Harbors  
**Lab Order:** 12110851  
**Project:** Northside Plant  
**Lab ID:** 12110851-07

**Client Sample ID:** BUILDING#25  
**Report Date:** 12/11/2012  
**Collection Date:** 11/20/2012  
**Matrix:** Liquid

Analyses	Result	EMT Reporting Limit	Units	Date Analyzed	Batch	Analyst
o-Cresol	< 100.	100.	mg/L	12/7/12 11:26	78610	RYL
Pentachlorophenol	< 50.	50.	mg/L	12/7/12 11:26	78610	RYL
Pyridine	< 2.5	2.5	mg/L	12/7/12 11:26	78610	RYL
Cresols, total	< 100.	100.	mg/L	12/7/12 11:26	78610	RYL

### Volatile Organic Compounds, TCLP

Method: SW1311 / SW8260B / SW5030A

1,1-Dichloroethene	< 0.35	0.35	mg/L	12/4/12 15:20	78567	XN
1,2-Dichloroethane	< 0.25	0.25	mg/L	12/4/12 15:20	78567	XN
1,4-Dichlorobenzene	< 3.75	3.75	mg/L	12/4/12 15:20	78567	XN
2-Butanone	< 100.	100.	mg/L	12/4/12 15:20	78567	XN
Benzene	< 0.25	0.25	mg/L	12/4/12 15:20	78567	XN
Carbon tetrachloride	< 0.25	0.25	mg/L	12/4/12 15:20	78567	XN
Chlorobenzene	< 50.	50.	mg/L	12/4/12 15:20	78567	XN
Chloroform	< 3.	3.	mg/L	12/4/12 15:20	78567	XN
Tetrachloroethene	< 0.35	0.35	mg/L	12/4/12 15:20	78567	XN
Trichloroethene	< 0.25	0.25	mg/L	12/4/12 15:20	78567	XN
Vinyl chloride	< 0.1	0.1	mg/L	12/4/12 15:20	78567	XN

### Qualifiers:

B - Analyte detected in the associated Method Blank  
E - Estimated  
H - Holding Time Exceeded

S - Spike Recovery outside accepted recovery limits  
R - RPD outside accepted recovery limits  
J - Analyte detected below quantitation limits

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# ENVIRONMENTAL MONITORING AND TECHNOLOGIES, INC.

8100 North Austin Avenue  
Morton Grove, Illinois 60053-3203

## Chain of Custody Record

847-967-6666  
FAX: 847-967-6735  
www.emt.com

Due Date: \_\_\_\_\_ COC #: 115956

TURNAROUND TIME:

☐ RUSH

\_\_\_\_ day turnaround

☒ ROUTINE

Company: Clean Harbors Inc  
Address: 11800 Stony Island Ave  
Chicago IL 60617

Phone #: (773) 646-6202 Fax #: ( ) \_\_\_\_\_

P.O. #: \_\_\_\_\_ Proj. #: \_\_\_\_\_

Client Contact: Jim Gaudet

Project ID / Location: Northside Plant

Sample Type:  
1. Waste Water 4. Sludge 7. Groundwater (filtered)  
2. Drinking Water 5. Oil 8. Other  
3. Soil 6. Groundwater Clean Water

Container Type:  
P - Plastic V - VOC Vial O - Other  
G - Glass B - Tedlar Bag \_\_\_\_\_

Preservative:  
1. None 4. NaOH 7. Zn Ace  
2. H<sub>2</sub>SO<sub>4</sub> 5. HCl 8. Other  
3. HNO<sub>3</sub> 6. MeOH \_\_\_\_\_

Analyses

EMT  
USE  
ONLY

EMT  
WORKORDER  
#1211085

Sample I.D.	Sample Type	Container			Sampling					Preservation	
		Size	Type	No.	By	Date	Time	pH	Temp.	Field	Lab
<u>Clean Water #5</u>	<u>8</u>	<u>9</u>				<u>11/19</u>				<u>X</u>	
<u>#106</u>						<u>11/20</u>				<u>X</u>	
<u>#107</u>						<u>11/19</u>				<u>X</u>	
<u>#109</u>						<u>11/21</u>				<u>X</u>	
<u>#110</u>						<u>11/20</u>				<u>X</u>	
<u>#112</u>						<u>11/21</u>				<u>X</u>	
<u>Building #25</u>						<u>11/20</u>				<u>X</u>	

Relinquished By:

Date: 11-30-12

Received By:

Date: 11-30-12

EMT USE ONLY CLHARB

☐ SAMPLE RECEIVED  
ON TIME

Dave Parshy

Time: \_\_\_\_\_

Robert Kryn

Time: 12:10

Client Code: ERS R11/31

☐ TEMPERATURE  
(Must be recorded if sampling  
was greater than 6 hrs. prior to  
sample receipt)

Relinquished By:

Date: 11-30-12

Received By:

Date: \_\_\_\_\_

EMT Project I.D.  
Clean Harbors Waste

4c

Robert Kryn

Time: 15:00

Robert Kryn

Time: \_\_\_\_\_

Characterization

Relinquished By:

Date: \_\_\_\_\_

Received For Lab By:

Date: 11-30-12

Jar Lot No.

EMT SAMPLE RETURN  
POLICY ON BACK

SPECIAL INSTRUCTIONS:



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Jim Laubsted  
Clean Harbors  
11800 South Stony Island Avenue  
Chicago, IL 60617

September 05, 2012

RE Rinse Water Flam Tank Farm

Lab Orders:  
12080857

Dear Mr. Jim Laubsted:

Enclosed are the analytical reports for the EMT Lab Order listed. Also included with this analytical report is a copy of the chain of custody associated with these samples. If you have any questions, please contact me at 847-967-6666.

Sincerely,

Joe Pavilonis  
Project Manager

Approved by,

Marilyn Krueding  
Laboratory Director

This Report Contains 24 pages

The Contents of this report apply to the sample(s) analyzed. No duplication is allowed except in its entirety.

State of Illinois, NELAC Accredited Lab. No. 100256  
State of Wisconsin, WDNR Accredited Lab No. 999888890

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**CLIENT:** Clean Harbors

**Date:** 9/5/2012

**Project:** Rinse Water Flam Tank Farm

## CASE NARRATIVE

**Lab Order:** 12080857

Unless otherwise noted, samples were analyzed using the methods outlined in the following references:

Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, SW846, 3rd Edition

Unless otherwise noted, all method blanks, laboratory spikes, and/or matrix spikes met quality assurance objectives.

Sample results relate only to the analytes of interest tested and to the sample received at the laboratory.

All results are reported on a wet weight basis, unless otherwise noted. Dry weight adjusted results, reporting limits, method detection limits and dilution factors are indicated by the notation "dry" in the Units column. If present, a dilution factor will adjust the method detection limits and reporting limits.

The test results contained in this report meet all of the requirements of NELAC. Accreditation by the State of Illinois or Wisconsin is not an endorsement or a guarantee of the validity of data generated. For specific information regarding EMT's scope of accreditation, please contact your EMT project manager.

The Reporting Limit listed on the Report of Laboratory Analysis is EMT's reporting limit for the analyte reported. For most test methods this reporting limit is primarily based upon the lowest point in the calibration curve.

Analyst's initials of "OUT" indicate that the analyte was analyzed by a subcontracted laboratory.

### Method References:

SW=USEPA, Test Methods for Evaluating Solid Waste, SW-846.

E=USEPA Methods for the Determination of Inorganic Substances in Environmental Samples; Methods for Chemical Analysis of Water and Wastes; Methods for Organic Chemical Analysis of Municipal and Industrial Wastewater, 40 CFR Part 136, App A; methods for the Determination of Metals in Environmental Samples; Methods for the Determination of Organic Compounds in Drinking Water.

SM= APHA, Standard Methods for the Examination of Water and Wastewater.

D=ASTM, Annual Book of Standards

Batch numbers starting with a letter indicate an analytical batch while those that are exclusively numerals indicate a preparation batch.

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**CLIENT:** Clean Harbors

**Date:** 9/5/2012

**Project:** Rinse Water Flam Tank Farm

## CASE NARRATIVE

**Lab Order:** 12080857

Analytical Comments for METHOD 8260\_w, MB-76376: The method blank contaminations are below the reporting limits.

Analytical Comments for METHOD 8260\_w, MB-76405: The method blank contamination is below the reporting limit.

Analytical Comments for METHOD 1311\_8081, 12080857-09A: 2,4,5,6-Tetrachloro-m-xylene surrogate recovery was above the laboratory acceptance limit due to matrix.

Analytical Comments for METHOD 1311\_8270NEW, 12080857-10A: Surrogate recovery was below the laboratory acceptance limit.

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## Report of Laboratory Analysis

**CLIENT:** Clean Harbors  
**Lab Order:** 12080857  
**Project:** Rinse Water Flam Tank Farm  
**Lab ID:** 12080857-01

**Client Sample ID:** TK#101  
**Report Date:** 9/5/2012  
**Collection Date:** 8/27/2012  
**Matrix:** Liquid

Analyses	Result	EMT Reporting Limit	Units	Date Analyzed	Batch	Analyst
<b>Mercury, TCLP Extracted</b>						
<b>Method: SW7470A / SW1311 / HG PREP</b>						
Mercury	0.00119	0.0005	mg/L	9/4/12 00:22	76492	ML3
<b>Metals, TCLP Extracted</b>						
<b>Method: SW6020A / SW1311 / SW3015</b>						
Arsenic	< 0.0312	0.0312	mg/L	8/30/12 11:00	76394	AG
Barium	0.088	0.0312	mg/L	8/30/12 11:00	76394	AG
Cadmium	< 0.0063	0.0063	mg/L	8/30/12 11:00	76394	AG
Chromium	< 0.0438	0.0438	mg/L	8/30/12 11:00	76394	AG
Lead	< 0.0125	0.0125	mg/L	8/30/12 11:00	76394	AG
Selenium	< 0.112	0.112	mg/L	8/30/12 11:00	76394	AG
Silver	< 0.0125	0.0125	mg/L	8/30/12 11:00	76394	AG
<b>Pesticides, TCLP</b>						
<b>Method: SW1311 / SW8081 / SW3510C</b>						
Chlordane	< 0.03	0.03	mg/L	8/31/12 12:54	76390	LP
Endrin	< 0.02	0.02	mg/L	8/31/12 12:54	76390	LP
gamma-BHC	< 0.4	0.4	mg/L	8/31/12 12:54	76390	LP
Heptachlor	< 0.006	0.006	mg/L	8/31/12 12:54	76390	LP
Heptachlor epoxide	< 0.002	0.002	mg/L	8/31/12 12:54	76390	LP
Methoxychlor	< 10.	10.	mg/L	8/31/12 12:54	76390	LP
Toxaphene	< 0.5	0.5	mg/L	8/31/12 12:54	76390	LP
<b>Surrogates:</b>						
2,4,5,6-Tetrachloro-m-xylene	43.0	21.2-83.3	%REC	8/31/12 12:54	76390	LP
Decachlorobiphenyl	46.0	5-198	%REC	8/31/12 12:54	76390	LP
<b>Semivolatile Organic Compounds, TCLP</b>						
<b>Method: SW1311 / SW8270D / SW3510C</b>						
1,4-Dichlorobenzene	< 3.75	3.75	mg/L	8/31/12 14:27	76430	RYL
2,4,5-Trichlorophenol	< 200.	200.	mg/L	8/31/12 14:27	76430	RYL
2,4,6-Trichlorophenol	< 1.	1.	mg/L	8/31/12 14:27	76430	RYL
2,4-Dinitrotoluene	< 0.065	0.065	mg/L	8/31/12 14:27	76430	RYL
Hexachlorobenzene	< 0.065	0.065	mg/L	8/31/12 14:27	76430	RYL
Hexachlorobutadiene	< 0.25	0.25	mg/L	8/31/12 14:27	76430	RYL
Hexachloroethane	< 1.5	1.5	mg/L	8/31/12 14:27	76430	RYL
m,p-Cresol	< 100.	100.	mg/L	8/31/12 14:27	76430	RYL
Nitrobenzene	< 1.	1.	mg/L	8/31/12 14:27	76430	RYL
o-Cresol	< 100.	100.	mg/L	8/31/12 14:27	76430	RYL

**Qualifiers:** B - Analyte detected in the associated Method Blank  
E - Estimated  
H - Holding Time Exceeded

S - Spike Recovery outside accepted recovery limits  
R - RPD outside accepted recovery limits  
J - Analyte detected below quantitation limits

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## Report of Laboratory Analysis

**CLIENT:** Clean Harbors  
**Lab Order:** 12080857  
**Project:** Rinse Water Flam Tank Farm  
**Lab ID:** 12080857-01

**Client Sample ID:** TK#101  
**Report Date:** 9/5/2012  
**Collection Date:** 8/27/2012  
**Matrix:** Liquid

Analyses	Result	EMT Reporting Limit	Units	Date Analyzed	Batch	Analyst
Pentachlorophenol	< 50.	50.	mg/L	8/31/12 14:27	76430	RYL
Pyridine	< 2.5	2.5	mg/L	8/31/12 14:27	76430	RYL
Cresols, total	< 100.	100.	mg/L	8/31/12 14:27	76430	RYL
<b>Surrogates:</b>						
2,4,6-Tribromophenol	73.8	40-125	%REC	8/31/12 14:27	76430	RYL
2-Fluorobiphenyl	51.1	50-110	%REC	8/31/12 14:27	76430	RYL
2-Fluorophenol	38.7	20-110	%REC	8/31/12 14:27	76430	RYL
Nitrobenzene-d5	47.9	40-110	%REC	8/31/12 14:27	76430	RYL
Phenol-d5	42.1	10-115	%REC	8/31/12 14:27	76430	RYL
<b>Volatile Organic Compounds, TCLP</b>						
<b>Method: SW1311 / SW8260B / SW5030A</b>						
1,1-Dichloroethene	< 0.35	0.35	mg/L	8/28/12 18:01	76376	XN
1,2-Dichloroethane	< 0.25	0.25	mg/L	8/28/12 18:01	76376	XN
1,4-Dichlorobenzene	< 3.75	3.75	mg/L	8/28/12 18:01	76376	XN
2-Butanone	< 100.	100.	mg/L	8/28/12 18:01	76376	XN
Benzene	< 0.25	0.25	mg/L	8/28/12 18:01	76376	XN
Carbon tetrachloride	< 0.25	0.25	mg/L	8/28/12 18:01	76376	XN
Chlorobenzene	< 50.	50.	mg/L	8/28/12 18:01	76376	XN
Chloroform	< 3.	3.	mg/L	8/28/12 18:01	76376	XN
Tetrachloroethene	< 0.35	0.35	mg/L	8/28/12 18:01	76376	XN
Trichloroethene	< 0.25	0.25	mg/L	8/28/12 18:01	76376	XN
Vinyl chloride	< 0.1	0.1	mg/L	8/28/12 18:01	76376	XN
<b>Surrogates:</b>						
1,2-Dichloroethane-d4	111	70-120	%REC	8/28/12 18:01	76376	XN
4-Bromofluorobenzene	96.9	75-120	%REC	8/28/12 18:01	76376	XN
d4-1,2-Dichlorobenzene	101	80-120	%REC	8/28/12 18:01	76376	XN
Dibromofluoromethane	111	85-115	%REC	8/28/12 18:01	76376	XN
Fluorobenzene	102	80-120	%REC	8/28/12 18:01	76376	XN
Toluene-d8	106	85-120	%REC	8/28/12 18:01	76376	XN

### Qualifiers:

B - Analyte detected in the associated Method Blank  
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S - Spike Recovery outside accepted recovery limits  
R - RPD outside accepted recovery limits  
J - Analyte detected below quantitation limits

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## Report of Laboratory Analysis

**CLIENT:** Clean Harbors  
**Lab Order:** 12080857  
**Project:** Rinse Water Flam Tank Farm  
**Lab ID:** 12080857-02

**Client Sample ID:** TK#102  
**Report Date:** 9/5/2012  
**Collection Date:** 8/27/2012  
**Matrix:** Liquid

Analyses	Result	EMT Reporting Limit	Units	Date Analyzed	Batch	Analyst
<b>Mercury, TCLP Extracted</b>						
Method: SW7470A / SW1311 / HG PREP						
Mercury	0.00203	0.0005	mg/L	9/4/12 00:22	76492	ML3
<b>Metals, TCLP Extracted</b>						
Method: SW6020A / SW1311 / SW3015						
Arsenic	< 0.0312	0.0312	mg/L	8/30/12 11:00	76394	AG
Barium	0.114	0.0312	mg/L	8/30/12 11:00	76394	AG
Cadmium	< 0.0063	0.0063	mg/L	8/30/12 11:00	76394	AG
Chromium	0.129	0.0438	mg/L	8/30/12 11:00	76394	AG
Lead	< 0.0125	0.0125	mg/L	8/30/12 11:00	76394	AG
Selenium	< 0.112	0.112	mg/L	8/30/12 11:00	76394	AG
Silver	< 0.0125	0.0125	mg/L	8/30/12 11:00	76394	AG
<b>Pesticides, TCLP</b>						
Method: SW1311 / SW8081 / SW3510C						
Chlordane	< 0.03	0.03	mg/L	8/30/12 14:46	76390	LP
Endrin	< 0.02	0.02	mg/L	8/30/12 14:46	76390	LP
gamma-BHC	< 0.4	0.4	mg/L	8/30/12 14:46	76390	LP
Heptachlor	< 0.006	0.006	mg/L	8/30/12 14:46	76390	LP
Heptachlor epoxide	< 0.002	0.002	mg/L	8/30/12 14:46	76390	LP
Methoxychlor	< 10.	10.	mg/L	8/30/12 14:46	76390	LP
Toxaphene	< 0.5	0.5	mg/L	8/30/12 14:46	76390	LP
<b>Surrogates:</b>						
2,4,5,6-Tetrachloro-m-xylene	72.0	21.2-83.3	%REC	8/30/12 14:46	76390	LP
Decachlorobiphenyl	84.0	5-198	%REC	8/30/12 14:46	76390	LP
<b>Semivolatile Organic Compounds, TCLP</b>						
Method: SW1311 / SW8270D / SW3510C						
1,4-Dichlorobenzene	< 3.75	3.75	mg/L	8/31/12 15:11	76430	RYL
2,4,5-Trichlorophenol	< 200.	200.	mg/L	8/31/12 15:11	76430	RYL
2,4,6-Trichlorophenol	< 1.	1.	mg/L	8/31/12 15:11	76430	RYL
2,4-Dinitrotoluene	< 0.065	0.065	mg/L	8/31/12 15:11	76430	RYL
Hexachlorobenzene	< 0.065	0.065	mg/L	8/31/12 15:11	76430	RYL
Hexachlorobutadiene	< 0.25	0.25	mg/L	8/31/12 15:11	76430	RYL
Hexachloroethane	< 1.5	1.5	mg/L	8/31/12 15:11	76430	RYL
m,p-Cresol	< 100.	100.	mg/L	8/31/12 15:11	76430	RYL
Nitrobenzene	< 1.	1.	mg/L	8/31/12 15:11	76430	RYL
o-Cresol	< 100.	100.	mg/L	8/31/12 15:11	76430	RYL

**Qualifiers:** B - Analyte detected in the associated Method Blank  
E - Estimated  
H - Holding Time Exceeded

S - Spike Recovery outside accepted recovery limits  
R - RPD outside accepted recovery limits  
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## Report of Laboratory Analysis

**CLIENT:** Clean Harbors  
**Lab Order:** 12080857  
**Project:** Rinse Water Flam Tank Farm  
**Lab ID:** 12080857-02

**Client Sample ID:** TK#102  
**Report Date:** 9/5/2012  
**Collection Date:** 8/27/2012  
**Matrix:** Liquid

Analyses	Result	EMT Reporting Limit	Units	Date Analyzed	Batch	Analyst
Pentachlorophenol	< 50.	50.	mg/L	8/31/12 15:11	76430	RYL
Pyridine	< 2.5	2.5	mg/L	8/31/12 15:11	76430	RYL
Cresols, total	< 100.	100.	mg/L	8/31/12 15:11	76430	RYL
<b>Surrogates:</b>						
2,4,6-Tribromophenol	109	40-125	%REC	8/31/12 15:11	76430	RYL
2-Fluorobiphenyl	102	50-110	%REC	8/31/12 15:11	76430	RYL
2-Fluorophenol	82.3	20-110	%REC	8/31/12 15:11	76430	RYL
Nitrobenzene-d5	102	40-110	%REC	8/31/12 15:11	76430	RYL
Phenol-d5	78.2	10-115	%REC	8/31/12 15:11	76430	RYL
<b>Volatile Organic Compounds, TCLP</b>						
<b>Method:</b> SW1311 / SW8260B / SW5030A						
1,1-Dichloroethene	< 0.35	0.35	mg/L	8/28/12 18:34	76376	XN
1,2-Dichloroethane	< 0.25	0.25	mg/L	8/28/12 18:34	76376	XN
1,4-Dichlorobenzene	< 3.75	3.75	mg/L	8/28/12 18:34	76376	XN
2-Butanone	< 100.	100.	mg/L	8/28/12 18:34	76376	XN
Benzene	< 0.25	0.25	mg/L	8/28/12 18:34	76376	XN
Carbon tetrachloride	< 0.25	0.25	mg/L	8/28/12 18:34	76376	XN
Chlorobenzene	< 50.	50.	mg/L	8/28/12 18:34	76376	XN
Chloroform	< 3.	3.	mg/L	8/28/12 18:34	76376	XN
Tetrachloroethene	< 0.35	0.35	mg/L	8/28/12 18:34	76376	XN
Trichloroethene	< 0.25	0.25	mg/L	8/28/12 18:34	76376	XN
Vinyl chloride	< 0.1	0.1	mg/L	8/28/12 18:34	76376	XN
<b>Surrogates:</b>						
1,2-Dichloroethane-d4	107	70-120	%REC	8/28/12 18:34	76376	XN
4-Bromofluorobenzene	101	75-120	%REC	8/28/12 18:34	76376	XN
d4-1,2-Dichlorobenzene	102	80-120	%REC	8/28/12 18:34	76376	XN
Dibromofluoromethane	102	85-115	%REC	8/28/12 18:34	76376	XN
Fluorobenzene	106	80-120	%REC	8/28/12 18:34	76376	XN
Toluene-d8	105	85-120	%REC	8/28/12 18:34	76376	XN

### Qualifiers:

B - Analyte detected in the associated Method Blank

E - Estimated

H - Holding Time Exceeded

S - Spike Recovery outside accepted recovery limits

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## Report of Laboratory Analysis

**CLIENT:** Clean Harbors  
**Lab Order:** 12080857  
**Project:** Rinse Water Flam Tank Farm  
**Lab ID:** 12080857-03

**Client Sample ID:** TK#103  
**Report Date:** 9/5/2012  
**Collection Date:** 8/27/2012  
**Matrix:** Liquid

Analyses	Result	EMT Reporting Limit	Units	Date Analyzed	Batch	Analyst
<b>Mercury, TCLP Extracted</b>						
<b>Method: SW7470A / SW1311 / HG PREP</b>						
Mercury	0.00491	0.0005	mg/L	9/4/12 00:22	76492	ML3
<b>Metals, TCLP Extracted</b>						
<b>Method: SW6020A / SW1311 / SW3015</b>						
Arsenic	< 0.0312	0.0312	mg/L	8/30/12 11:00	76394	AG
Barium	0.0713	0.0312	mg/L	8/30/12 11:00	76394	AG
Cadmium	< 0.0063	0.0063	mg/L	8/30/12 11:00	76394	AG
Chromium	< 0.0438	0.0438	mg/L	8/30/12 11:00	76394	AG
Lead	< 0.0125	0.0125	mg/L	8/30/12 11:00	76394	AG
Selenium	< 0.112	0.112	mg/L	8/30/12 11:00	76394	AG
Silver	< 0.0125	0.0125	mg/L	8/30/12 11:00	76394	AG
<b>Pesticides, TCLP</b>						
<b>Method: SW1311 / SW8081 / SW3510C</b>						
Chlordane	< 0.03	0.03	mg/L	8/30/12 15:33	76390	LP
Endrin	< 0.02	0.02	mg/L	8/30/12 15:33	76390	LP
gamma-BHC	< 0.4	0.4	mg/L	8/30/12 15:33	76390	LP
Heptachlor	< 0.006	0.006	mg/L	8/30/12 15:33	76390	LP
Heptachlor epoxide	< 0.002	0.002	mg/L	8/30/12 15:33	76390	LP
Methoxychlor	< 10.	10.	mg/L	8/30/12 15:33	76390	LP
Toxaphene	< 0.5	0.5	mg/L	8/30/12 15:33	76390	LP
<b>Surrogates:</b>						
2,4,5,6-Tetrachloro-m-xylene	30.0	21.2-83.3	%REC	8/30/12 15:33	76390	LP
Decachlorobiphenyl	72.0	5-198	%REC	8/30/12 15:33	76390	LP
<b>Semivolatile Organic Compounds, TCLP</b>						
<b>Method: SW1311 / SW8270D / SW3510C</b>						
1,4-Dichlorobenzene	< 3.75	3.75	mg/L	8/30/12 20:54	76430	RYL
2,4,5-Trichlorophenol	< 200.	200.	mg/L	8/30/12 20:54	76430	RYL
2,4,6-Trichlorophenol	< 1.	1.	mg/L	8/30/12 20:54	76430	RYL
2,4-Dinitrotoluene	< 0.065	0.065	mg/L	8/30/12 20:54	76430	RYL
Hexachlorobenzene	< 0.065	0.065	mg/L	8/30/12 20:54	76430	RYL
Hexachlorobutadiene	< 0.25	0.25	mg/L	8/30/12 20:54	76430	RYL
Hexachloroethane	< 1.5	1.5	mg/L	8/30/12 20:54	76430	RYL
m,p-Cresol	< 100.	100.	mg/L	8/30/12 20:54	76430	RYL
Nitrobenzene	< 1.	1.	mg/L	8/30/12 20:54	76430	RYL
o-Cresol	< 100.	100.	mg/L	8/30/12 20:54	76430	RYL

### Qualifiers:

B - Analyte detected in the associated Method Blank  
E - Estimated  
H - Holding Time Exceeded

S - Spike Recovery outside accepted recovery limits  
R - RPD outside accepted recovery limits  
J - Analyte detected below quantitation limits

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## Report of Laboratory Analysis

**CLIENT:** Clean Harbors  
**Lab Order:** 12080857  
**Project:** Rinse Water Flam Tank Farm  
**Lab ID:** 12080857-03

**Client Sample ID:** TK#103  
**Report Date:** 9/5/2012  
**Collection Date:** 8/27/2012  
**Matrix:** Liquid

Analyses	Result	EMT Reporting Limit	Units	Date Analyzed	Batch	Analyst
Pentachlorophenol	< 50.	50.	mg/L	8/30/12 20:54	76430	RYL
Pyridine	< 2.5	2.5	mg/L	8/30/12 20:54	76430	RYL
Cresols, total	< 100.	100.	mg/L	8/30/12 20:54	76430	RYL
<b>Surrogates:</b>						
2,4,6-Tribromophenol	71.3	40-125	%REC	8/30/12 20:54	76430	RYL
2-Fluorobiphenyl	53.4	50-110	%REC	8/30/12 20:54	76430	RYL
2-Fluorophenol	48.6	20-110	%REC	8/30/12 20:54	76430	RYL
Nitrobenzene-d5	54.2	40-110	%REC	8/30/12 20:54	76430	RYL
Phenol-d5	48.6	10-115	%REC	8/30/12 20:54	76430	RYL
<b>Volatile Organic Compounds, TCLP</b>						
			<b>Method: SW1311 / SW8260B / SW5030A</b>			
1,1-Dichloroethene	< 0.35	0.35	mg/L	8/28/12 19:07	76376	XN
1,2-Dichloroethane	< 0.25	0.25	mg/L	8/28/12 19:07	76376	XN
1,4-Dichlorobenzene	< 3.75	3.75	mg/L	8/28/12 19:07	76376	XN
2-Butanone	< 100.	100.	mg/L	8/28/12 19:07	76376	XN
Benzene	< 0.25	0.25	mg/L	8/28/12 19:07	76376	XN
Carbon tetrachloride	< 0.25	0.25	mg/L	8/28/12 19:07	76376	XN
Chlorobenzene	< 50.	50.	mg/L	8/28/12 19:07	76376	XN
Chloroform	< 3.	3.	mg/L	8/28/12 19:07	76376	XN
Tetrachloroethene	< 0.35	0.35	mg/L	8/28/12 19:07	76376	XN
Trichloroethene	< 0.25	0.25	mg/L	8/28/12 19:07	76376	XN
Vinyl chloride	< 0.1	0.1	mg/L	8/28/12 19:07	76376	XN
<b>Surrogates:</b>						
1,2-Dichloroethane-d4	115	70-120	%REC	8/28/12 19:07	76376	XN
4-Bromofluorobenzene	62.1	75-120	S %REC	8/28/12 19:07	76376	XN
d4-1,2-Dichlorobenzene	106	80-120	%REC	8/28/12 19:07	76376	XN
Dibromofluoromethane	113	85-115	%REC	8/28/12 19:07	76376	XN
Fluorobenzene	100	80-120	%REC	8/28/12 19:07	76376	XN
Toluene-d8	104	85-120	%REC	8/28/12 19:07	76376	XN

### Qualifiers:

B - Analyte detected in the associated Method Blank

E - Estimated

H - Holding Time Exceeded

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

J - Analyte detected below quantitation limits

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## Report of Laboratory Analysis

**CLIENT:** Clean Harbors  
**Lab Order:** 12080857  
**Project:** Rinse Water Flam Tank Farm  
**Lab ID:** 12080857-04

**Client Sample ID:** TK#104  
**Report Date:** 9/5/2012  
**Collection Date:** 8/27/2012  
**Matrix:** Liquid

Analyses	Result	EMT Reporting Limit	Units	Date Analyzed	Batch	Analyst
<b>Mercury, TCLP Extracted</b>						
<b>Method: SW7470A / SW1311 / HG PREP</b>						
Mercury	< 0.0005	0.0005	mg/L	9/4/12 00:22	76492	ML3
<b>Metals, TCLP Extracted</b>						
<b>Method: SW6020A / SW1311 / SW3015</b>						
Arsenic	< 0.0312	0.0312	mg/L	8/30/12 11:00	76394	AG
Barium	0.0746	0.0312	mg/L	8/30/12 11:00	76394	AG
Cadmium	0.0069	0.0063	mg/L	8/30/12 11:00	76394	AG
Chromium	< 0.0438	0.0438	mg/L	8/30/12 11:00	76394	AG
Lead	< 0.0125	0.0125	mg/L	8/30/12 11:00	76394	AG
Selenium	< 0.112	0.112	mg/L	8/30/12 11:00	76394	AG
Silver	< 0.0125	0.0125	mg/L	8/30/12 11:00	76394	AG
<b>Pesticides, TCLP</b>						
<b>Method: SW1311 / SW8081 / SW3510C</b>						
Chlordane	< 0.03	0.03	mg/L	8/30/12 16:20	76390	LP
Endrin	< 0.02	0.02	mg/L	8/30/12 16:20	76390	LP
gamma-BHC	< 0.4	0.4	mg/L	8/30/12 16:20	76390	LP
Heptachlor	< 0.006	0.006	mg/L	8/30/12 16:20	76390	LP
Heptachlor epoxide	< 0.002	0.002	mg/L	8/30/12 16:20	76390	LP
Methoxychlor	< 10.	10.	mg/L	8/30/12 16:20	76390	LP
Toxaphene	< 0.5	0.5	mg/L	8/30/12 16:20	76390	LP
<b>Surrogates:</b>						
2,4,5,6-Tetrachloro-m-xylene	72.0	21.2-83.3	%REC	8/30/12 16:20	76390	LP
Decachlorobiphenyl	64.0	5-198	%REC	8/30/12 16:20	76390	LP
<b>Semivolatile Organic Compounds, TCLP</b>						
<b>Method: SW1311 / SW8270D / SW3510C</b>						
1,4-Dichlorobenzene	< 3.75	3.75	mg/L	8/30/12 23:34	76430	RYL
2,4,5-Trichlorophenol	< 200.	200.	mg/L	8/30/12 23:34	76430	RYL
2,4,6-Trichlorophenol	< 1.	1.	mg/L	8/30/12 23:34	76430	RYL
2,4-Dinitrotoluene	< 0.065	0.065	mg/L	8/30/12 23:34	76430	RYL
Hexachlorobenzene	< 0.065	0.065	mg/L	8/30/12 23:34	76430	RYL
Hexachlorobutadiene	< 0.25	0.25	mg/L	8/30/12 23:34	76430	RYL
Hexachloroethane	< 1.5	1.5	mg/L	8/30/12 23:34	76430	RYL
m,p-Cresol	< 100.	100.	mg/L	8/30/12 23:34	76430	RYL
Nitrobenzene	< 1.	1.	mg/L	8/30/12 23:34	76430	RYL
o-Cresol	< 100.	100.	mg/L	8/30/12 23:34	76430	RYL

**Qualifiers:** B - Analyte detected in the associated Method Blank  
E - Estimated  
H - Holding Time Exceeded

S - Spike Recovery outside accepted recovery limits  
R - RPD outside accepted recovery limits  
J - Analyte detected below quantitation limits

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## Report of Laboratory Analysis

**CLIENT:** Clean Harbors

**Client Sample ID:** TK#104

**Lab Order:** 12080857

**Report Date:** 9/5/2012

**Project:** Rinse Water Flam Tank Farm

**Collection Date:** 8/27/2012

**Lab ID:** 12080857-04

**Matrix:** Liquid

Analyses	Result	EMT Reporting Limit	Units	Date Analyzed	Batch	Analyst
Pentachlorophenol	< 50.	50.	mg/L	8/30/12 23:34	76430	RYL
Pyridine	< 2.5	2.5	mg/L	8/30/12 23:34	76430	RYL
Cresols, total	< 100.	100.	mg/L	8/30/12 23:34	76430	RYL
<b>Surrogates:</b>						
2,4,6-Tribromophenol	61.8	40-125	%REC	8/30/12 23:34	76430	RYL
2-Fluorobiphenyl	57.4	50-110	%REC	8/30/12 23:34	76430	RYL
2-Fluorophenol	46.0	20-110	%REC	8/30/12 23:34	76430	RYL
Nitrobenzene-d5	57.7	40-110	%REC	8/30/12 23:34	76430	RYL
Phenol-d5	46.4	10-115	%REC	8/30/12 23:34	76430	RYL
<b>Volatile Organic Compounds, TCLP</b>						
<b>Method: SW1311 / SW8260B / SW5030A</b>						
1,1-Dichloroethene	< 0.35	0.35	mg/L	9/3/12 18:01	76477	JL
1,2-Dichloroethane	< 0.25	0.25	mg/L	9/3/12 18:01	76477	JL
1,4-Dichlorobenzene	< 3.75	3.75	mg/L	9/3/12 18:01	76477	JL
2-Butanone	< 100.	100.	mg/L	9/3/12 18:01	76477	JL
Benzene	< 0.25	0.25	mg/L	9/3/12 18:01	76477	JL
Carbon tetrachloride	< 0.25	0.25	mg/L	9/3/12 18:01	76477	JL
Chlorobenzene	< 50.	50.	mg/L	9/3/12 18:01	76477	JL
Chloroform	< 3.	3.	mg/L	9/3/12 18:01	76477	JL
Tetrachloroethene	< 0.35	0.35	mg/L	9/3/12 18:01	76477	JL
Trichloroethene	< 0.25	0.25	mg/L	9/3/12 18:01	76477	JL
Vinyl chloride	< 0.1	0.1	mg/L	9/3/12 18:01	76477	JL
<b>Surrogates:</b>						
1,2-Dichloroethane-d4	111	70-120	%REC	9/3/12 18:01	76477	JL
4-Bromofluorobenzene	88.0	75-120	%REC	9/3/12 18:01	76477	JL
d4-1,2-Dichlorobenzene	98.1	80-120	%REC	9/3/12 18:01	76477	JL
Dibromofluoromethane	110	85-115	%REC	9/3/12 18:01	76477	JL
Fluorobenzene	101	80-120	%REC	9/3/12 18:01	76477	JL
Toluene-d8	103	85-120	%REC	9/3/12 18:01	76477	JL

**Qualifiers:**

B - Analyte detected in the associated Method Blank

S - Spike Recovery outside accepted recovery limits

E - Estimated

R - RPD outside accepted recovery limits

H - Holding Time Exceeded

J - Analyte detected below quantitation limits

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## Report of Laboratory Analysis

**CLIENT:** Clean Harbors  
**Lab Order:** 12080857  
**Project:** Rinse Water Flam Tank Farm  
**Lab ID:** 12080857-05

**Client Sample ID:** TK#105  
**Report Date:** 9/5/2012  
**Collection Date:** 8/27/2012  
**Matrix:** Liquid

Analyses	Result	EMT Reporting Limit	Units	Date Analyzed	Batch	Analyst
<b>Mercury, TCLP Extracted</b>						
		<b>Method: SW7470A / SW1311 / HG PREP</b>				
Mercury	0.00077	0.0005	mg/L	9/4/12 00:22	76492	ML3
<b>Metals, TCLP Extracted</b>						
		<b>Method: SW6020A / SW1311 / SW3015</b>				
Arsenic	< 0.0312	0.0312	mg/L	8/30/12 11:00	76394	AG
Barium	0.0701	0.0312	mg/L	8/30/12 11:00	76394	AG
Cadmium	< 0.0063	0.0063	mg/L	8/30/12 11:00	76394	AG
Chromium	< 0.0438	0.0438	mg/L	8/30/12 11:00	76394	AG
Lead	< 0.0125	0.0125	mg/L	8/30/12 11:00	76394	AG
Selenium	< 0.112	0.112	mg/L	8/30/12 11:00	76394	AG
Silver	< 0.0125	0.0125	mg/L	8/30/12 11:00	76394	AG
<b>Pesticides, TCLP</b>						
		<b>Method: SW1311 / SW8081 / SW3510C</b>				
Chlordane	< 0.03	0.03	mg/L	8/30/12 17:08	76390	LP
Endrin	< 0.02	0.02	mg/L	8/30/12 17:08	76390	LP
gamma-BHC	< 0.4	0.4	mg/L	8/30/12 17:08	76390	LP
Heptachlor	< 0.006	0.006	mg/L	8/30/12 17:08	76390	LP
Heptachlor epoxide	< 0.002	0.002	mg/L	8/30/12 17:08	76390	LP
Methoxychlor	< 10.	10.	mg/L	8/30/12 17:08	76390	LP
Toxaphene	< 0.5	0.5	mg/L	8/30/12 17:08	76390	LP
<b>Surrogates:</b>						
2,4,5,6-Tetrachloro-m-xylene	119	21.2-83.3	S %REC	8/30/12 17:08	76390	LP
Decachlorobiphenyl	67.0	5-198	%REC	8/30/12 17:08	76390	LP
<b>Semivolatile Organic Compounds, TCLP</b>						
		<b>Method: SW1311 / SW8270D / SW3510C</b>				
1,4-Dichlorobenzene	< 3.75	3.75	mg/L	8/30/12 22:51	76430	RYL
2,4,5-Trichlorophenol	< 200.	200.	mg/L	8/30/12 22:51	76430	RYL
2,4,6-Trichlorophenol	< 1.	1.	mg/L	8/30/12 22:51	76430	RYL
2,4-Dinitrotoluene	< 0.065	0.065	mg/L	8/30/12 22:51	76430	RYL
Hexachlorobenzene	< 0.065	0.065	mg/L	8/30/12 22:51	76430	RYL
Hexachlorobutadiene	< 0.25	0.25	mg/L	8/30/12 22:51	76430	RYL
Hexachloroethane	< 1.5	1.5	mg/L	8/30/12 22:51	76430	RYL
m,p-Cresol	< 100.	100.	mg/L	8/30/12 22:51	76430	RYL
Nitrobenzene	< 1.	1.	mg/L	8/30/12 22:51	76430	RYL
o-Cresol	< 100.	100.	mg/L	8/30/12 22:51	76430	RYL

**Qualifiers:** B - Analyte detected in the associated Method Blank  
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H - Holding Time Exceeded

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R - RPD outside accepted recovery limits  
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## Report of Laboratory Analysis

**CLIENT:** Clean Harbors  
**Lab Order:** 12080857  
**Project:** Rinse Water Flam Tank Farm  
**Lab ID:** 12080857-05

**Client Sample ID:** TK#105  
**Report Date:** 9/5/2012  
**Collection Date:** 8/27/2012  
**Matrix:** Liquid

Analyses	Result	EMT Reporting Limit	Units	Date Analyzed	Batch	Analyst
Pentachlorophenol	< 50.	50.	mg/L	8/30/12 22:51	76430	RYL
Pyridine	< 2.5	2.5	mg/L	8/30/12 22:51	76430	RYL
Cresols, total	< 100.	100.	mg/L	8/30/12 22:51	76430	RYL
<b>Surrogates:</b>						
2,4,6-Tribromophenol	59.7	40-125	%REC	8/30/12 22:51	76430	RYL
2-Fluorobiphenyl	52.7	50-110	%REC	8/30/12 22:51	76430	RYL
2-Fluorophenol	39.8	20-110	%REC	8/30/12 22:51	76430	RYL
Nitrobenzene-d5	56.8	40-110	%REC	8/30/12 22:51	76430	RYL
Phenol-d5	43.7	10-115	%REC	8/30/12 22:51	76430	RYL
<b>Volatile Organic Compounds, TCLP</b>						
<b>Method: SW1311 / SW8260B / SW5030A</b>						
1,1-Dichloroethene	< 0.35	0.35	mg/L	8/28/12 20:12	76376	XN
1,2-Dichloroethane	< 0.25	0.25	mg/L	8/28/12 20:12	76376	XN
1,4-Dichlorobenzene	< 3.75	3.75	mg/L	8/28/12 20:12	76376	XN
2-Butanone	< 100.	100.	mg/L	8/28/12 20:12	76376	XN
Benzene	< 0.25	0.25	mg/L	8/28/12 20:12	76376	XN
Carbon tetrachloride	< 0.25	0.25	mg/L	8/28/12 20:12	76376	XN
Chlorobenzene	< 50.	50.	mg/L	8/28/12 20:12	76376	XN
Chloroform	< 3.	3.	mg/L	8/28/12 20:12	76376	XN
Tetrachloroethene	< 0.35	0.35	mg/L	8/28/12 20:12	76376	XN
Trichloroethene	< 0.25	0.25	mg/L	8/28/12 20:12	76376	XN
Vinyl chloride	< 0.1	0.1	mg/L	8/28/12 20:12	76376	XN
<b>Surrogates:</b>						
1,2-Dichloroethane-d4	110	70-120	%REC	8/28/12 20:12	76376	XN
4-Bromofluorobenzene	83.4	75-120	%REC	8/28/12 20:12	76376	XN
d4-1,2-Dichlorobenzene	105	80-120	%REC	8/28/12 20:12	76376	XN
Dibromofluoromethane	108	85-115	%REC	8/28/12 20:12	76376	XN
Fluorobenzene	106	80-120	%REC	8/28/12 20:12	76376	XN
Toluene-d8	108	85-120	%REC	8/28/12 20:12	76376	XN

### Qualifiers:

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## Report of Laboratory Analysis

**CLIENT:** Clean Harbors **Client Sample ID:** TK#106  
**Lab Order:** 12080857 **Report Date:** 9/5/2012  
**Project:** Rinse Water Flam Tank Farm **Collection Date:** 8/27/2012  
**Lab ID:** 12080857-06 **Matrix:** Liquid

Analyses	Result	EMT Reporting Limit	Units	Date Analyzed	Batch	Analyst
<b>Mercury, TCLP Extracted</b>						
		<b>Method: SW7470A / SW1311 / HG PREP</b>				
Mercury	< 0.0005	0.0005	mg/L	9/4/12 00:22	76492	ML3
<b>Metals, TCLP Extracted</b>						
		<b>Method: SW6020A / SW1311 / SW3015</b>				
Arsenic	< 0.0312	0.0312	mg/L	8/30/12 11:00	76394	AG
Barium	0.0836	0.0312	mg/L	8/30/12 11:00	76394	AG
Cadmium	< 0.0063	0.0063	mg/L	8/30/12 11:00	76394	AG
Chromium	< 0.0438	0.0438	mg/L	8/30/12 11:00	76394	AG
Lead	< 0.0125	0.0125	mg/L	8/30/12 11:00	76394	AG
Selenium	< 0.112	0.112	mg/L	8/30/12 11:00	76394	AG
Silver	< 0.0125	0.0125	mg/L	8/30/12 11:00	76394	AG
<b>Pesticides, TCLP</b>						
		<b>Method: SW1311 / SW8081 / SW3510C</b>				
Chlordane	< 0.03	0.03	mg/L	8/30/12 17:55	76390	LP
Endrin	< 0.02	0.02	mg/L	8/30/12 17:55	76390	LP
gamma-BHC	< 0.4	0.4	mg/L	8/30/12 17:55	76390	LP
Heptachlor	< 0.006	0.006	mg/L	8/30/12 17:55	76390	LP
Heptachlor epoxide	< 0.002	0.002	mg/L	8/30/12 17:55	76390	LP
Methoxychlor	< 10.	10.	mg/L	8/30/12 17:55	76390	LP
Toxaphene	< 0.5	0.5	mg/L	8/30/12 17:55	76390	LP
<b>Surrogates:</b>						
2,4,5,6-Tetrachloro-m-xylene	66.0	21.2-83.3	%REC	8/30/12 17:55	76390	LP
Decachlorobiphenyl	75.0	5-198	%REC	8/30/12 17:55	76390	LP
<b>Semivolatile Organic Compounds, TCLP</b>						
		<b>Method: SW1311 / SW8270D / SW3510C</b>				
1,4-Dichlorobenzene	< 3.75	3.75	mg/L	8/30/12 22:07	76430	RYL
2,4,5-Trichlorophenol	< 200.	200.	mg/L	8/30/12 22:07	76430	RYL
2,4,6-Trichlorophenol	< 1.	1.	mg/L	8/30/12 22:07	76430	RYL
2,4-Dinitrotoluene	< 0.065	0.065	mg/L	8/30/12 22:07	76430	RYL
Hexachlorobenzene	< 0.065	0.065	mg/L	8/30/12 22:07	76430	RYL
Hexachlorobutadiene	< 0.25	0.25	mg/L	8/30/12 22:07	76430	RYL
Hexachloroethane	< 1.5	1.5	mg/L	8/30/12 22:07	76430	RYL
m,p-Cresol	< 100.	100.	mg/L	8/30/12 22:07	76430	RYL
Nitrobenzene	< 1.	1.	mg/L	8/30/12 22:07	76430	RYL
o-Cresol	< 100.	100.	mg/L	8/30/12 22:07	76430	RYL

**Qualifiers:** B - Analyte detected in the associated Method Blank S - Spike Recovery outside accepted recovery limits  
E - Estimated R - RPD outside accepted recovery limits  
H - Holding Time Exceeded J - Analyte detected below quantitation limits

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## Report of Laboratory Analysis

**CLIENT:** Clean Harbors  
**Lab Order:** 12080857  
**Project:** Rinse Water Flam Tank Farm  
**Lab ID:** 12080857-06

**Client Sample ID:** TK#106  
**Report Date:** 9/5/2012  
**Collection Date:** 8/27/2012  
**Matrix:** Liquid

Analyses	Result	EMT Reporting Limit	Units	Date Analyzed	Batch	Analyst
Pentachlorophenol	< 50.	50.	mg/L	8/30/12 22:07	76430	RYL
Pyridine	< 2.5	2.5	mg/L	8/30/12 22:07	76430	RYL
Cresols, total	< 100.	100.	mg/L	8/30/12 22:07	76430	RYL
<b>Surrogates:</b>						
2,4,6-Tribromophenol	47.3	40-125	%REC	8/30/12 22:07	76430	RYL
2-Fluorobiphenyl	41.4	50-110	S %REC	8/30/12 22:07	76430	RYL
2-Fluorophenol	31.1	20-110	%REC	8/30/12 22:07	76430	RYL
Nitrobenzene-d5	44.4	40-110	%REC	8/30/12 22:07	76430	RYL
Phenol-d5	32.9	10-115	%REC	8/30/12 22:07	76430	RYL
<b>Volatile Organic Compounds, TCLP</b>						
<b>Method: SW1311 / SW8260B / SW5030A</b>						
1,1-Dichloroethene	< 0.35	0.35	mg/L	8/28/12 21:18	76376	XN
1,2-Dichloroethane	< 0.25	0.25	mg/L	8/28/12 21:18	76376	XN
1,4-Dichlorobenzene	< 3.75	3.75	mg/L	8/28/12 21:18	76376	XN
2-Butanone	< 100.	100.	mg/L	8/28/12 21:18	76376	XN
Benzene	< 0.25	0.25	mg/L	8/28/12 21:18	76376	XN
Carbon tetrachloride	< 0.25	0.25	mg/L	8/28/12 21:18	76376	XN
Chlorobenzene	< 50.	50.	mg/L	8/28/12 21:18	76376	XN
Chloroform	< 3.	3.	mg/L	8/28/12 21:18	76376	XN
Tetrachloroethene	< 0.35	0.35	mg/L	8/28/12 21:18	76376	XN
Trichloroethene	< 0.25	0.25	mg/L	8/28/12 21:18	76376	XN
Vinyl chloride	< 0.1	0.1	mg/L	8/28/12 21:18	76376	XN
<b>Surrogates:</b>						
1,2-Dichloroethane-d4	111	70-120	%REC	8/28/12 21:18	76376	XN
4-Bromofluorobenzene	97.6	75-120	%REC	8/28/12 21:18	76376	XN
d4-1,2-Dichlorobenzene	98.8	80-120	%REC	8/28/12 21:18	76376	XN
Dibromofluoromethane	111	85-115	%REC	8/28/12 21:18	76376	XN
Fluorobenzene	103	80-120	%REC	8/28/12 21:18	76376	XN
Toluene-d8	107	85-120	%REC	8/28/12 21:18	76376	XN

**Qualifiers:** B - Analyte detected in the associated Method Blank  
E - Estimated  
H - Holding Time Exceeded

S - Spike Recovery outside accepted recovery limits  
R - RPD outside accepted recovery limits  
J - Analyte detected below quantitation limits

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## Report of Laboratory Analysis

**CLIENT:** Clean Harbors  
**Lab Order:** 12080857  
**Project:** Rinse Water Flam Tank Farm  
**Lab ID:** 12080857-07

**Client Sample ID:** TK#107  
**Report Date:** 9/5/2012  
**Collection Date:** 8/27/2012  
**Matrix:** Liquid

Analyses	Result	EMT Reporting Limit	Units	Date Analyzed	Batch	Analyst
<b>Mercury, TCLP Extracted</b>						
<b>Method: SW7470A / SW1311 / HG PREP</b>						
Mercury	0.00061	0.0005	mg/L	9/4/12 00:22	76499	ML3
<b>Metals, TCLP Extracted</b>						
<b>Method: SW6020A / SW1311 / SW3015</b>						
Arsenic	< 0.0312	0.0312	mg/L	8/30/12 11:00	76394	AG
Barium	0.0691	0.0312	mg/L	8/30/12 11:00	76394	AG
Cadmium	< 0.0063	0.0063	mg/L	8/30/12 11:00	76394	AG
Chromium	< 0.0438	0.0438	mg/L	8/30/12 11:00	76394	AG
Lead	< 0.0125	0.0125	mg/L	8/30/12 11:00	76394	AG
Selenium	< 0.112	0.112	mg/L	8/30/12 11:00	76394	AG
Silver	< 0.0125	0.0125	mg/L	8/30/12 11:00	76394	AG
<b>Pesticides, TCLP</b>						
<b>Method: SW1311 / SW8081 / SW3510C</b>						
Chlordane	< 0.03	0.03	mg/L	8/30/12 18:42	76390	LP
Endrin	< 0.02	0.02	mg/L	8/30/12 18:42	76390	LP
gamma-BHC	< 0.4	0.4	mg/L	8/30/12 18:42	76390	LP
Heptachlor	< 0.006	0.006	mg/L	8/30/12 18:42	76390	LP
Heptachlor epoxide	< 0.002	0.002	mg/L	8/30/12 18:42	76390	LP
Methoxychlor	< 10.	10.	mg/L	8/30/12 18:42	76390	LP
Toxaphene	< 0.5	0.5	mg/L	8/30/12 18:42	76390	LP
<b>Surrogates:</b>						
2,4,5,6-Tetrachloro-m-xylene	43.0	21.2-83.3	%REC	8/30/12 18:42	76390	LP
Decachlorobiphenyl	51.0	5-198	%REC	8/30/12 18:42	76390	LP
<b>Semivolatile Organic Compounds, TCLP</b>						
<b>Method: SW1311 / SW8270D / SW3510C</b>						
1,4-Dichlorobenzene	< 3.75	3.75	mg/L	8/31/12 15:54	76430	RYL
2,4,5-Trichlorophenol	< 200.	200.	mg/L	8/31/12 15:54	76430	RYL
2,4,6-Trichlorophenol	< 1.	1.	mg/L	8/31/12 15:54	76430	RYL
2,4-Dinitrotoluene	< 0.065	0.065	mg/L	8/31/12 15:54	76430	RYL
Hexachlorobenzene	< 0.065	0.065	mg/L	8/31/12 15:54	76430	RYL
Hexachlorobutadiene	< 0.25	0.25	mg/L	8/31/12 15:54	76430	RYL
Hexachloroethane	< 1.5	1.5	mg/L	8/31/12 15:54	76430	RYL
m,p-Cresol	< 100.	100.	mg/L	8/31/12 15:54	76430	RYL
Nitrobenzene	< 1.	1.	mg/L	8/31/12 15:54	76430	RYL
o-Cresol	< 100.	100.	mg/L	8/31/12 15:54	76430	RYL

### Qualifiers:

B - Analyte detected in the associated Method Blank

E - Estimated

H - Holding Time Exceeded

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

J - Analyte detected below quantitation limits

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## Report of Laboratory Analysis

**CLIENT:** Clean Harbors  
**Lab Order:** 12080857  
**Project:** Rinse Water Flam Tank Farm  
**Lab ID:** 12080857-07

**Client Sample ID:** TK#107  
**Report Date:** 9/5/2012  
**Collection Date:** 8/27/2012  
**Matrix:** Liquid

Analyses	Result	EMT Reporting Limit	Units	Date Analyzed	Batch	Analyst
Pentachlorophenol	< 50.	50.	mg/L	8/31/12 15:54	76430	RYL
Pyridine	< 2.5	2.5	mg/L	8/31/12 15:54	76430	RYL
Cresols, total	< 100.	100.	mg/L	8/31/12 15:54	76430	RYL
<b>Surrogates:</b>						
2,4,6-Tribromophenol	90.6	40-125	%REC	8/31/12 15:54	76430	RYL
2-Fluorobiphenyl	68.1	50-110	%REC	8/31/12 15:54	76430	RYL
2-Fluorophenol	47.9	20-110	%REC	8/31/12 15:54	76430	RYL
Nitrobenzene-d5	54.4	40-110	%REC	8/31/12 15:54	76430	RYL
Phenol-d5	56.0	10-115	%REC	8/31/12 15:54	76430	RYL
<b>Volatile Organic Compounds, TCLP</b>						
<b>Method: SW1311 / SW8260B / SW5030A</b>						
1,1-Dichloroethene	< 0.35	0.35	mg/L	8/29/12 20:32	76405	XN
1,2-Dichloroethane	< 0.25	0.25	mg/L	8/29/12 20:32	76405	XN
1,4-Dichlorobenzene	< 3.75	3.75	mg/L	8/29/12 20:32	76405	XN
2-Butanone	< 100.	100.	mg/L	8/29/12 20:32	76405	XN
Benzene	< 0.25	0.25	mg/L	8/29/12 20:32	76405	XN
Carbon tetrachloride	< 0.25	0.25	mg/L	8/29/12 20:32	76405	XN
Chlorobenzene	< 50.	50.	mg/L	8/29/12 20:32	76405	XN
Chloroform	< 3.	3.	mg/L	8/29/12 20:32	76405	XN
Tetrachloroethene	< 0.35	0.35	mg/L	8/29/12 20:32	76405	XN
Trichloroethene	< 0.25	0.25	mg/L	8/29/12 20:32	76405	XN
Vinyl chloride	< 0.1	0.1	mg/L	8/29/12 20:32	76405	XN
<b>Surrogates:</b>						
1,2-Dichloroethane-d4	110	70-120	%REC	8/29/12 20:32	76405	XN
4-Bromofluorobenzene	88.9	75-120	%REC	8/29/12 20:32	76405	XN
d4-1,2-Dichlorobenzene	102	80-120	%REC	8/29/12 20:32	76405	XN
Dibromofluoromethane	107	85-115	%REC	8/29/12 20:32	76405	XN
Fluorobenzene	98.4	80-120	%REC	8/29/12 20:32	76405	XN
Toluene-d8	98.2	85-120	%REC	8/29/12 20:32	76405	XN

**Qualifiers:** B - Analyte detected in the associated Method Blank  
E - Estimated  
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S - Spike Recovery outside accepted recovery limits  
R - RPD outside accepted recovery limits  
J - Analyte detected below quantitation limits

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## Report of Laboratory Analysis

**CLIENT:** Clean Harbors  
**Lab Order:** 12080857  
**Project:** Rinse Water Flam Tank Farm  
**Lab ID:** 12080857-08

**Client Sample ID:** TK#109  
**Report Date:** 9/5/2012  
**Collection Date:** 8/27/2012  
**Matrix:** Liquid

Analyses	Result	EMT Reporting Limit	Units	Date Analyzed	Batch	Analyst
<b>ICP Metals, TCLP Extracted</b>						
<b>Method: SW6010C / SW1311 / SW3015</b>						
Arsenic	< 0.0625	0.0625	mg/L	8/31/12 11:08	76457	AG
Barium	0.351	0.0625	mg/L	8/31/12 11:08	76457	AG
Cadmium	< 0.0625	0.0625	mg/L	8/31/12 11:08	76457	AG
Chromium	< 0.0625	0.0625	mg/L	8/31/12 11:08	76457	AG
Lead	< 0.0625	0.0625	mg/L	8/31/12 11:08	76457	AG
Selenium	< 0.0625	0.0625	mg/L	8/31/12 11:08	76457	AG
Silver	< 0.0625	0.0625	mg/L	8/31/12 11:08	76457	AG
<b>Mercury, TCLP Extracted</b>						
<b>Method: SW7470A / SW1311 / HG PREP</b>						
Mercury	0.0145	0.0005	mg/L	9/4/12 00:22	76499	ML3
<b>Pesticides, TCLP</b>						
<b>Method: SW1311 / SW8081 / SW3510C</b>						
Chlordane	< 0.03	0.03	mg/L	8/30/12 19:29	76390	LP
Endrin	< 0.02	0.02	mg/L	8/30/12 19:29	76390	LP
gamma-BHC	< 0.4	0.4	mg/L	8/30/12 19:29	76390	LP
Heptachlor	< 0.006	0.006	mg/L	8/30/12 19:29	76390	LP
Heptachlor epoxide	< 0.002	0.002	mg/L	8/30/12 19:29	76390	LP
Methoxychlor	< 10.	10.	mg/L	8/30/12 19:29	76390	LP
Toxaphene	< 0.5	0.5	mg/L	8/30/12 19:29	76390	LP
<b>Surrogates:</b>						
2,4,5,6-Tetrachloro-m-xylene	46.0	21.2-83.3	%REC	8/30/12 19:29	76390	LP
Decachlorobiphenyl	59.0	5-198	%REC	8/30/12 19:29	76390	LP
<b>Semivolatile Organic Compounds, TCLP</b>						
<b>Method: SW1311 / SW8270D / SW3510C</b>						
1,4-Dichlorobenzene	< 3.75	3.75	mg/L	8/30/12 21:24	76430	RYL
2,4,5-Trichlorophenol	< 200.	200.	mg/L	8/30/12 21:24	76430	RYL
2,4,6-Trichlorophenol	< 1.	1.	mg/L	8/30/12 21:24	76430	RYL
2,4-Dinitrotoluene	< 0.065	0.065	mg/L	8/30/12 21:24	76430	RYL
Hexachlorobenzene	< 0.065	0.065	mg/L	8/30/12 21:24	76430	RYL
Hexachlorobutadiene	< 0.25	0.25	mg/L	8/30/12 21:24	76430	RYL
Hexachloroethane	< 1.5	1.5	mg/L	8/30/12 21:24	76430	RYL
m,p-Cresol	< 100.	100.	mg/L	8/30/12 21:24	76430	RYL
Nitrobenzene	< 1.	1.	mg/L	8/30/12 21:24	76430	RYL
o-Cresol	< 100.	100.	mg/L	8/30/12 21:24	76430	RYL

**Qualifiers:** B - Analyte detected in the associated Method Blank  
E - Estimated  
H - Holding Time Exceeded

S - Spike Recovery outside accepted recovery limits  
R - RPD outside accepted recovery limits  
J - Analyte detected below quantitation limits

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## Report of Laboratory Analysis

**CLIENT:** Clean Harbors  
**Lab Order:** 12080857  
**Project:** Rinse Water Flam Tank Farm  
**Lab ID:** 12080857-08

**Client Sample ID:** TK#109  
**Report Date:** 9/5/2012  
**Collection Date:** 8/27/2012  
**Matrix:** Liquid

Analyses	Result	EMT Reporting Limit	Units	Date Analyzed	Batch	Analyst
Pentachlorophenol	< 50.	50.	mg/L	8/30/12 21:24	76430	RYL
Pyridine	< 2.5	2.5	mg/L	8/30/12 21:24	76430	RYL
Cresols, total	< 100.	100.	mg/L	8/30/12 21:24	76430	RYL
<b>Surrogates:</b>						
2,4,6-Tribromophenol	70.6	40-125	%REC	8/30/12 21:24	76430	RYL
2-Fluorobiphenyl	49.0	50-110	S %REC	8/30/12 21:24	76430	RYL
2-Fluorophenol	40.8	20-110	%REC	8/30/12 21:24	76430	RYL
Nitrobenzene-d5	48.2	40-110	%REC	8/30/12 21:24	76430	RYL
Phenol-d5	44.4	10-115	%REC	8/30/12 21:24	76430	RYL
<b>Volatile Organic Compounds, TCLP</b>						
<b>Method: SW1311 / SW8260B / SW5030A</b>						
1,1-Dichloroethene	< 0.35	0.35	mg/L	8/29/12 21:02	76405	XN
1,2-Dichloroethane	< 0.25	0.25	mg/L	8/29/12 21:02	76405	XN
1,4-Dichlorobenzene	< 3.75	3.75	mg/L	8/29/12 21:02	76405	XN
2-Butanone	< 100.	100.	mg/L	8/29/12 21:02	76405	XN
Benzene	< 0.25	0.25	mg/L	8/29/12 21:02	76405	XN
Carbon tetrachloride	< 0.25	0.25	mg/L	8/29/12 21:02	76405	XN
Chlorobenzene	< 50.	50.	mg/L	8/29/12 21:02	76405	XN
Chloroform	< 3.	3.	mg/L	8/29/12 21:02	76405	XN
Tetrachloroethene	< 0.35	0.35	mg/L	8/29/12 21:02	76405	XN
Trichloroethene	< 0.25	0.25	mg/L	8/29/12 21:02	76405	XN
Vinyl chloride	< 0.1	0.1	mg/L	8/29/12 21:02	76405	XN
<b>Surrogates:</b>						
1,2-Dichloroethane-d4	111	70-120	%REC	8/29/12 21:02	76405	XN
4-Bromofluorobenzene	98.4	75-120	%REC	8/29/12 21:02	76405	XN
d4-1,2-Dichlorobenzene	106	80-120	%REC	8/29/12 21:02	76405	XN
Dibromofluoromethane	110	85-115	%REC	8/29/12 21:02	76405	XN
Fluorobenzene	96.5	80-120	%REC	8/29/12 21:02	76405	XN
Toluene-d8	96.8	85-120	%REC	8/29/12 21:02	76405	XN

**Qualifiers:** B - Analyte detected in the associated Method Blank  
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S - Spike Recovery outside accepted recovery limits  
R - RPD outside accepted recovery limits  
J - Analyte detected below quantitation limits

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## Report of Laboratory Analysis

**CLIENT:** Clean Harbors  
**Lab Order:** 12080857  
**Project:** Rinse Water Flam Tank Farm  
**Lab ID:** 12080857-09

**Client Sample ID:** TK#110  
**Report Date:** 9/5/2012  
**Collection Date:** 8/27/2012  
**Matrix:** Liquid

Analyses	Result	EMT Reporting Limit	Units	Date Analyzed	Batch	Analyst
<b>ICP Metals, TCLP Extracted</b>						
Method: SW6010C / SW1311 / SW3015						
Arsenic	< 0.0625	0.0625	mg/L	8/31/12 11:08	76457	AG
Barium	0.292	0.0625	mg/L	8/31/12 11:08	76457	AG
Cadmium	< 0.0625	0.0625	mg/L	8/31/12 11:08	76457	AG
Chromium	< 0.0625	0.0625	mg/L	8/31/12 11:08	76457	AG
Lead	< 0.0625	0.0625	mg/L	8/31/12 11:08	76457	AG
Selenium	< 0.0625	0.0625	mg/L	8/31/12 11:08	76457	AG
Silver	< 0.0625	0.0625	mg/L	8/31/12 11:08	76457	AG
<b>Mercury, TCLP Extracted</b>						
Method: SW7470A / SW1311 / HG PREP						
Mercury	0.00136	0.0005	mg/L	9/4/12 00:22	76499	ML3
<b>Pesticides, TCLP</b>						
Method: SW1311 / SW8081 / SW3510C						
Chlordane	< 0.03	0.03	mg/L	8/30/12 20:17	76390	LP
Endrin	< 0.02	0.02	mg/L	8/30/12 20:17	76390	LP
gamma-BHC	< 0.4	0.4	mg/L	8/30/12 20:17	76390	LP
Heptachlor	< 0.006	0.006	mg/L	8/30/12 20:17	76390	LP
Heptachlor epoxide	< 0.002	0.002	mg/L	8/30/12 20:17	76390	LP
Methoxychlor	< 10.	10.	mg/L	8/30/12 20:17	76390	LP
Toxaphene	< 0.5	0.5	mg/L	8/30/12 20:17	76390	LP
<b>Surrogates:</b>						
2,4,5,6-Tetrachloro-m-xylene	764	21.2-83.3	S %REC	8/30/12 20:17	76390	LP
Decachlorobiphenyl	68.0	5-198	%REC	8/30/12 20:17	76390	LP
<b>Semivolatile Organic Compounds, TCLP</b>						
Method: SW1311 / SW8270D / SW3510C						
1,4-Dichlorobenzene	< 3.75	3.75	mg/L	8/30/12 21:37	76430	RYL
2,4,5-Trichlorophenol	< 200.	200.	mg/L	8/30/12 21:37	76430	RYL
2,4,6-Trichlorophenol	< 1.	1.	mg/L	8/30/12 21:37	76430	RYL
2,4-Dinitrotoluene	< 0.065	0.065	mg/L	8/30/12 21:37	76430	RYL
Hexachlorobenzene	< 0.065	0.065	mg/L	8/30/12 21:37	76430	RYL
Hexachlorobutadiene	< 0.25	0.25	mg/L	8/30/12 21:37	76430	RYL
Hexachloroethane	< 1.5	1.5	mg/L	8/30/12 21:37	76430	RYL
m,p-Cresol	< 100.	100.	mg/L	8/30/12 21:37	76430	RYL
Nitrobenzene	< 1.	1.	mg/L	8/30/12 21:37	76430	RYL
o-Cresol	< 100.	100.	mg/L	8/30/12 21:37	76430	RYL

**Qualifiers:** B - Analyte detected in the associated Method Blank  
E - Estimated  
H - Holding Time Exceeded

S - Spike Recovery outside accepted recovery limits  
R - RPD outside accepted recovery limits  
J - Analyte detected below quantitation limits

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# ENVIRONMENTAL MONITORING AND TECHNOLOGIES, INC.



8100 North Austin • Morton Grove, IL 60053-3203  
847.967.6666 • 800.246.0663 • fax: 847.967.6735 • www.emt.com

## Report of Laboratory Analysis

**CLIENT:** Clean Harbors  
**Lab Order:** 12080857  
**Project:** Rinse Water Flam Tank Farm  
**Lab ID:** 12080857-09

**Client Sample ID:** TK#110  
**Report Date:** 9/5/2012  
**Collection Date:** 8/27/2012  
**Matrix:** Liquid

Analyses	Result	EMT Reporting Limit	Units	Date Analyzed	Batch	Analyst
Pentachlorophenol	< 50.	50.	mg/L	8/30/12 21:37	76430	RYL
Pyridine	< 2.5	2.5	mg/L	8/30/12 21:37	76430	RYL
Cresols, total	< 100.	100.	mg/L	8/30/12 21:37	76430	RYL
<b>Surrogates:</b>						
2,4,6-Tribromophenol	67.6	40-125	%REC	8/30/12 21:37	76430	RYL
2-Fluorobiphenyl	48.1	50-110	S %REC	8/30/12 21:37	76430	RYL
2-Fluorophenol	39.2	20-110	%REC	8/30/12 21:37	76430	RYL
Nitrobenzene-d5	42.6	40-110	%REC	8/30/12 21:37	76430	RYL
Phenol-d5	47.4	10-115	%REC	8/30/12 21:37	76430	RYL
<b>Volatile Organic Compounds, TCLP</b>						
<b>Method: SW1311 / SW8260B / SW5030A</b>						
1,1-Dichloroethene	< 0.35	0.35	mg/L	8/29/12 21:32	76405	XN
1,2-Dichloroethane	< 0.25	0.25	mg/L	8/29/12 21:32	76405	XN
1,4-Dichlorobenzene	< 3.75	3.75	mg/L	8/29/12 21:32	76405	XN
2-Butanone	< 100.	100.	mg/L	8/29/12 21:32	76405	XN
Benzene	< 0.25	0.25	mg/L	8/29/12 21:32	76405	XN
Carbon tetrachloride	< 0.25	0.25	mg/L	8/29/12 21:32	76405	XN
Chlorobenzene	< 50.	50.	mg/L	8/29/12 21:32	76405	XN
Chloroform	< 3.	3.	mg/L	8/29/12 21:32	76405	XN
Tetrachloroethene	< 0.35	0.35	mg/L	8/29/12 21:32	76405	XN
Trichloroethene	< 0.25	0.25	mg/L	8/29/12 21:32	76405	XN
Vinyl chloride	< 0.1	0.1	mg/L	8/29/12 21:32	76405	XN
<b>Surrogates:</b>						
1,2-Dichloroethane-d4	112	70-120	%REC	8/29/12 21:32	76405	XN
4-Bromofluorobenzene	97.8	75-120	%REC	8/29/12 21:32	76405	XN
d4-1,2-Dichlorobenzene	103	80-120	%REC	8/29/12 21:32	76405	XN
Dibromofluoromethane	111	85-115	%REC	8/29/12 21:32	76405	XN
Fluorobenzene	98.7	80-120	%REC	8/29/12 21:32	76405	XN
Toluene-d8	98.1	85-120	%REC	8/29/12 21:32	76405	XN

**Qualifiers:** B - Analyte detected in the associated Method Blank  
E - Estimated  
H - Holding Time Exceeded

S - Spike Recovery outside accepted recovery limits  
R - RPD outside accepted recovery limits  
J - Analyte detected below quantitation limits

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## Report of Laboratory Analysis

**CLIENT:** Clean Harbors  
**Lab Order:** 12080857  
**Project:** Rinse Water Flam Tank Farm  
**Lab ID:** 12080857-10

**Client Sample ID:** TK#112  
**Report Date:** 9/5/2012  
**Collection Date:** 8/27/2012  
**Matrix:** Liquid

Analyses	Result	EMT Reporting Limit	Units	Date Analyzed	Batch	Analyst
<b>ICP Metals, TCLP Extracted</b>		<b>Method: SW6010C / SW1311 / SW3015</b>				
Arsenic	< 0.0625	0.0625	mg/L	8/31/12 11:08	76457	AG
Barium	0.144	0.0625	mg/L	8/31/12 11:08	76457	AG
Cadmium	< 0.0625	0.0625	mg/L	8/31/12 11:08	76457	AG
Chromium	< 0.0625	0.0625	mg/L	8/31/12 11:08	76457	AG
Lead	< 0.0625	0.0625	mg/L	8/31/12 11:08	76457	AG
Selenium	< 0.0625	0.0625	mg/L	8/31/12 11:08	76457	AG
Silver	< 0.0625	0.0625	mg/L	8/31/12 11:08	76457	AG
<b>Mercury, TCLP Extracted</b>		<b>Method: SW7470A / SW1311 / HG PREP</b>				
Mercury	0.00055	0.0005	mg/L	9/4/12 00:22	76499	ML3
<b>Pesticides, TCLP</b>		<b>Method: SW1311 / SW8081 / SW3510C</b>				
Chlordane	< 0.03	0.03	mg/L	8/31/12 12:54	76390	LP
Endrin	< 0.02	0.02	mg/L	8/31/12 12:54	76390	LP
gamma-BHC	< 0.4	0.4	mg/L	8/31/12 12:54	76390	LP
Heptachlor	< 0.006	0.006	mg/L	8/31/12 12:54	76390	LP
Heptachlor epoxide	< 0.002	0.002	mg/L	8/31/12 12:54	76390	LP
Methoxychlor	< 10.	10.	mg/L	8/31/12 12:54	76390	LP
Toxaphene	< 0.5	0.5	mg/L	8/31/12 12:54	76390	LP
<b>Surrogates:</b>						
2,4,5,6-Tetrachloro-m-xylene	51.0	21.2-83.3	%REC	8/31/12 12:54	76390	LP
Decachlorobiphenyl	56.0	5-198	%REC	8/31/12 12:54	76390	LP
<b>Semivolatile Organic Compounds, TCLP</b>		<b>Method: SW1311 / SW8270D / SW3510C</b>				
1,4-Dichlorobenzene	< 3.75	3.75	mg/L	8/30/12 22:20	76430	RYL
2,4,5-Trichlorophenol	< 200.	200.	mg/L	8/30/12 22:20	76430	RYL
2,4,6-Trichlorophenol	< 1.	1.	mg/L	8/30/12 22:20	76430	RYL
2,4-Dinitrotoluene	< 0.065	0.065	mg/L	8/30/12 22:20	76430	RYL
Hexachlorobenzene	< 0.065	0.065	mg/L	8/30/12 22:20	76430	RYL
Hexachlorobutadiene	< 0.25	0.25	mg/L	8/30/12 22:20	76430	RYL
Hexachloroethane	< 1.5	1.5	mg/L	8/30/12 22:20	76430	RYL
m,p-Cresol	< 100.	100.	mg/L	8/30/12 22:20	76430	RYL
Nitrobenzene	< 1.	1.	mg/L	8/30/12 22:20	76430	RYL
o-Cresol	< 100.	100.	mg/L	8/30/12 22:20	76430	RYL

**Qualifiers:** B - Analyte detected in the associated Method Blank  
E - Estimated  
H - Holding Time Exceeded

S - Spike Recovery outside accepted recovery limits  
R - RPD outside accepted recovery limits  
J - Analyte detected below quantitation limits

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## Report of Laboratory Analysis

**CLIENT:** Clean Harbors  
**Lab Order:** 12080857  
**Project:** Rinse Water Flam Tank Farm  
**Lab ID:** 12080857-10

**Client Sample ID:** TK#112  
**Report Date:** 9/5/2012  
**Collection Date:** 8/27/2012  
**Matrix:** Liquid

Analyses	Result	EMT Reporting Limit	Units	Date Analyzed	Batch	Analyst
Pentachlorophenol	< 50.	50.	mg/L	8/30/12 22:20	76430	RYL
Pyridine	< 2.5	2.5	mg/L	8/30/12 22:20	76430	RYL
Cresols, total	< 100.	100.	mg/L	8/30/12 22:20	76430	RYL
<b>Surrogates:</b>						
2,4,6-Tribromophenol	51.4	40-125	%REC	8/30/12 22:20	76430	RYL
2-Fluorobiphenyl	34.0	50-110	S %REC	8/30/12 22:20	76430	RYL
2-Fluorophenol	23.8	20-110	%REC	8/30/12 22:20	76430	RYL
Nitrobenzene-d5	30.8	40-110	S %REC	8/30/12 22:20	76430	RYL
Phenol-d5	26.8	10-115	%REC	8/30/12 22:20	76430	RYL
<b>Volatile Organic Compounds, TCLP</b>						
<b>Method: SW1311 / SW8260B / SW5030A</b>						
1,1-Dichloroethene	< 0.35	0.35	mg/L	8/31/12 00:58	76434	XN
1,2-Dichloroethane	< 0.25	0.25	mg/L	8/31/12 00:58	76434	XN
1,4-Dichlorobenzene	< 3.75	3.75	mg/L	8/31/12 00:58	76434	XN
2-Butanone	< 100.	100.	mg/L	8/31/12 00:58	76434	XN
Benzene	< 0.25	0.25	mg/L	8/31/12 00:58	76434	XN
Carbon tetrachloride	< 0.25	0.25	mg/L	8/31/12 00:58	76434	XN
Chlorobenzene	< 50.	50.	mg/L	8/31/12 00:58	76434	XN
Chloroform	< 3.	3.	mg/L	8/31/12 00:58	76434	XN
Tetrachloroethene	< 0.35	0.35	mg/L	8/31/12 00:58	76434	XN
Trichloroethene	< 0.25	0.25	mg/L	8/31/12 00:58	76434	XN
Vinyl chloride	< 0.1	0.1	mg/L	8/31/12 00:58	76434	XN
<b>Surrogates:</b>						
1,2-Dichloroethane-d4	122	70-120	S %REC	8/31/12 00:58	76434	XN
4-Bromofluorobenzene	82.3	75-120	%REC	8/31/12 00:58	76434	XN
d4-1,2-Dichlorobenzene	101	80-120	%REC	8/31/12 00:58	76434	XN
Dibromofluoromethane	130	85-115	S %REC	8/31/12 00:58	76434	XN
Fluorobenzene	88.8	80-120	%REC	8/31/12 00:58	76434	XN
Toluene-d8	86.4	85-120	%REC	8/31/12 00:58	76434	XN

### Qualifiers:

B - Analyte detected in the associated Method Blank

E - Estimated

H - Holding Time Exceeded

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

J - Analyte detected below quantitation limits

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## Chain of Custody Record

847-967-6666  
FAX: 847-967-6735  
www.emt.com

TURNAROUND TIME:

☐ RUSH

\_\_\_\_ day turnaround

☐ ROUTINE

Due Date: \_\_\_\_-\_\_\_\_-\_\_\_\_ COC #: 115389

Company: Clean Harbors Inc

Address: 11800 Stony Island Ave

Chicago IL 60617

Phone #: (773) 646-6202 Fax #: (\_\_\_\_) \_\_\_\_-\_\_\_\_

P.O. #: \_\_\_\_\_ Proj. #: \_\_\_\_\_

Client Contact: Jim Lombardi

Project ID / Location: Rinse Water - Farm Tank Farm

### Sample Type:

- |                   |                |                           |
|-------------------|----------------|---------------------------|
| 1. Waste Water    | 4. Sludge      | 7. Groundwater (filtered) |
| 2. Drinking Water | 5. Oil         | 8. Other                  |
| 3. Soil           | 6. Groundwater |                           |

### Container Type:

- P - Plastic V - VOC Vial O - Other  
G - Glass B - Tedlar Bag

### Preservative:

- |                                   |         |           |
|-----------------------------------|---------|-----------|
| 1. None                           | 4. NaOH | 7. Zn Ace |
| 2. H <sub>2</sub> SO <sub>4</sub> | 5. HCl  | 8. Other  |
| 3. HNO <sub>3</sub>               | 6. MeOH |           |

### Analyses

EMT  
USE  
ONLY

EMT  
WORKORDER

#1208085

TCLP

Sample I.D.	Sample Type	Container			Sampling					Preservation	
		Size	Type	No.	By	Date	Time	pH	Temp.	Field	Lab
TK#101	Q	Q	G	1	D.J.	8/27/12					
TK#102	Q	Q	G	1							
TK#103	Q	Q	G	1							
TK#104	Q	Q	G	1							
TK#105	Q	Q	G	1							
TK#106	Q	Q	G	1							
TK#107	Q	Q	G	1							
TK#109	Q	Q	G	1							
TK#110	Q	Q	G	1							
TK#112	Q	Q	G	1							

Relinquished By:

Date: 8-27-12

Received By:

Date: 8-27-12

EMT USE ONLY

☐ SAMPLE RECEIVED  
ON ICE

Relinquished By:

Date: 8-27-12

Received By:

Date: - -

Client Code: CLHARB

☐ TEMPERATURE  
(Must be recorded if sampling  
was greater than 6 hrs. prior to  
sample receipt)

Relinquished By:

Date: - -

Received For Lab By:

Date: 8-27-12

EMT Project I.D.  
Clean Harbors

Relinquished By:

Date: - -

Received For Lab By:

Date: 8-27-12

Waste Characterization

Relinquished By:

Date: - -

Received For Lab By:

Date: 8-27-12

Jar Lot No.

Relinquished By:

Date: - -

Received For Lab By:

Date: 8-27-12

Jar Lot No.

Relinquished By:

Date: - -

Received For Lab By:

Date: 8-27-12

Jar Lot No.

Relinquished By:

Date: - -

Received For Lab By:

Date: 8-27-12

Jar Lot No.

EMT SAMPLE RETURN  
POLICY ON BACK

SPECIAL INSTRUCTIONS:



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Jim Laubsted  
Clean Harbors  
11800 South Stony Island Avenue  
Chicago, IL 60617

December 11, 2012

RE RCRA Closure

Lab Orders:  
12110796

Dear Mr. Jim Laubsted:

Enclosed are the analytical reports for the EMT Lab Order listed. Also included with this analytical report is a copy of the chain of custody associated with these samples. If you have any questions, please contact me at 847-967-6666.

Sincerely,

Approved by,

Joe Pavilonis  
Project Manager

Marilyn Krueding  
Laboratory Director

This Report Contains 8 pages

The Contents of this report apply to the sample(s) analyzed. No duplication is allowed except in its entirety.

State of Illinois, NELAC Accredited Lab. No. 100256  
State of Wisconsin, WDNR Accredited Lab No. 999888890

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**CLIENT:** Clean Harbors

**Date:** 12/11/2012

**Project:** RCRA Closure

## CASE NARRATIVE

**Lab Order:** 12110796

Unless otherwise noted, samples were analyzed using the methods outlined in the following references:

Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, SW846, 3rd Edition

Unless otherwise noted, all method blanks, laboratory spikes, and/or matrix spikes met quality assurance objectives.

Sample results relate only to the analytes of interest tested and to the sample received at the laboratory.

All results are reported on a wet weight basis, unless otherwise noted. Dry weight adjusted results, reporting limits, method detection limits and dilution factors are indicated by the notation "dry" in the Units column. If present, a dilution factor will adjust the method detection limits and reporting limits.

The test results contained in this report meet all of the requirements of NELAC. Accreditation by the State of Illinois or Wisconsin is not an endorsement or a guarantee of the validity of data generated. For specific information regarding EMT's scope of accreditation, please contact your EMT project manager.

The Reporting Limit listed on the Report of Laboratory Analysis is EMT's reporting limit for the analyte reported. For most test methods this reporting limit is primarily based upon the lowest point in the calibration curve.

Analyst's initials of "OUT" indicate that the analyte was analyzed by a subcontracted laboratory.

### Method References:

SW=USEPA, Test Methods for Evaluating Solid Waste, SW-846.

E=USEPA Methods for the Determination of Inorganic Substances in Environmental Samples; Methods for Chemical Analysis of Water and Wastes; Methods for Organic Chemical Analysis of Municipal and Industrial Wastewater, 40 CFR Part 136, App A; methods for the Determination of Metals in Environmental Samples; Methods for the Determination of Organic Compounds in Drinking Water.

SM= APHA, Standard Methods for the Examination of Water and Wastewater.

D=ASTM, Annual Book of Standards

Batch numbers starting with a letter indicate an analytical batch while those that are exclusively numerals indicate a preparation batch.



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**CLIENT:** Clean Harbors  
**Project:** RCRA Closure  
**Lab Order:** 12110796

**Date:** 12/11/2012

## CASE NARRATIVE

---

Analytical Comments for METHOD 6020\_TCLP\_LIST, 12110796-02AMSD: The matrix spike duplicate recovery for Ag is outside of the laboratory acceptance range due to the matrix. The LCS run with the batch is acceptable.

Analytical Comments for METHOD 6020\_TCLP\_LIST, 12110796-02AMS: The matrix spike recovery for Ag is outside of the laboratory acceptance range due to the matrix. The LCS run with the batch is acceptable.

Analytical Comments for METHOD 6020\_DISS\_LIST, LCS-78474: LCS recovery for Fe is outside of the laboratory control limit.

Analytical Comments for METHOD 1311\_8270NEW, 12110796-02A: Surrogate recovery was below the laboratory acceptance limit.



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## Report of Laboratory Analysis

**CLIENT:** Clean Harbors  
**Lab Order:** 12110796  
**Project:** RCRA Closure  
**Lab ID:** 12110796-01

**Client Sample ID:** RINSE-DRUM HDLG  
**Report Date:** 12/11/2012  
**Collection Date:** 11/28/2012  
**Matrix:** Liquid

Analyses	Result	EMT Reporting Limit	Units	Date Analyzed	Batch	Analyst
<b>Mercury, TCLP Extracted</b>						
		<b>Method: SW7470A / SW1311 / HG PREP</b>				
Mercury	< 0.0005	0.0005	mg/L	11/30/12 12:35	78493	IG
<b>Metals, TCLP Extracted</b>						
		<b>Method: SW6020A / SW1311 / SW3015</b>				
Arsenic	< 0.0312	0.0312	mg/L	12/3/12 16:54	78492	AG
Barium	0.0942	0.0312	mg/L	12/3/12 16:54	78492	AG
Cadmium	< 0.0063	0.0063	mg/L	12/3/12 16:54	78492	AG
Chromium	< 0.0438	0.0438	mg/L	12/3/12 16:54	78492	AG
Lead	< 0.0125	0.0125	mg/L	12/3/12 16:54	78492	AG
Selenium	< 0.112	0.112	mg/L	12/3/12 16:54	78492	AG
Silver	< 0.0125	0.0125	mg/L	12/3/12 16:54	78492	AG
<b>Acid Herbicides, TCLP</b>						
		<b>Method: SW1311 / SW8321A / SW3510C</b>				
2,4,5-TP (Silvex)	< 0.5	0.5	mg/L	12/6/12	78599	DLO
2,4-D	< 5.	5.	mg/L	12/6/12	78599	DLO
<b>Pesticides, TCLP</b>						
		<b>Method: SW1311 / SW8081 / SW3510C</b>				
Chlordane	< 0.03	0.03	mg/L	12/5/12 16:27	78598	LP
Endrin	< 0.02	0.02	mg/L	12/5/12 16:27	78598	LP
gamma-BHC	< 0.4	0.4	mg/L	12/5/12 16:27	78598	LP
Heptachlor	< 0.006	0.006	mg/L	12/5/12 16:27	78598	LP
Heptachlor epoxide	< 0.002	0.002	mg/L	12/5/12 16:27	78598	LP
Methoxychlor	< 10.	10.	mg/L	12/5/12 16:27	78598	LP
Toxaphene	< 0.5	0.5	mg/L	12/5/12 16:27	78598	LP
<b>Semivolatile Organic Compounds, TCLP</b>						
		<b>Method: SW1311 / SW8270D / SW3510C</b>				
1,4-Dichlorobenzene	< 3.75	3.75	mg/L	12/4/12 01:07	78452	RYL
2,4,5-Trichlorophenol	< 200.	200.	mg/L	12/4/12 01:07	78452	RYL
2,4,6-Trichlorophenol	< 1.	1.	mg/L	12/4/12 01:07	78452	RYL
2,4-Dinitrotoluene	< 0.065	0.065	mg/L	12/4/12 01:07	78452	RYL
Hexachlorobenzene	< 0.065	0.065	mg/L	12/4/12 01:07	78452	RYL
Hexachlorobutadiene	< 0.25	0.25	mg/L	12/4/12 01:07	78452	RYL
Hexachloroethane	< 1.5	1.5	mg/L	12/4/12 01:07	78452	RYL
m,p-Cresol	< 100.	100.	mg/L	12/4/12 01:07	78452	RYL
Nitrobenzene	< 1.	1.	mg/L	12/4/12 01:07	78452	RYL

**Qualifiers:** B - Analyte detected in the associated Method Blank  
E - Estimated  
H - Holding Time Exceeded

S - Spike Recovery outside accepted recovery limits  
R - RPD outside accepted recovery limits  
J - Analyte detected below quantitation limits

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## Report of Laboratory Analysis

**CLIENT:** Clean Harbors  
**Lab Order:** 12110796  
**Project:** RCRA Closure  
**Lab ID:** 12110796-01

**Client Sample ID:** RINSE-DRUM HDLG  
**Report Date:** 12/11/2012  
**Collection Date:** 11/28/2012  
**Matrix:** Liquid

Analyses	Result	EMT Reporting Limit	Units	Date Analyzed	Batch	Analyst
o-Cresol	< 100.	100.	mg/L	12/4/12 01:07	78452	RYL
Pentachlorophenol	< 50.	50.	mg/L	12/4/12 01:07	78452	RYL
Pyridine	< 2.5	2.5	mg/L	12/4/12 01:07	78452	RYL
Cresols, total	< 100.	100.	mg/L	12/4/12 01:07	78452	RYL
<b>Volatile Organic Compounds, TCLP</b>						
<b>Method: SW1311 / SW8260B / SW5030A</b>						
1,1-Dichloroethene	< 0.35	0.35	mg/L	12/3/12 15:14	78537	XN
1,2-Dichloroethane	< 0.25	0.25	mg/L	12/3/12 15:14	78537	XN
1,4-Dichlorobenzene	< 3.75	3.75	mg/L	12/3/12 15:14	78537	XN
2-Butanone	< 100.	100.	mg/L	12/3/12 15:14	78537	XN
Benzene	< 0.25	0.25	mg/L	12/3/12 15:14	78537	XN
Carbon tetrachloride	< 0.25	0.25	mg/L	12/3/12 15:14	78537	XN
Chlorobenzene	< 50.	50.	mg/L	12/3/12 15:14	78537	XN
Chloroform	< 3.	3.	mg/L	12/3/12 15:14	78537	XN
Tetrachloroethene	< 0.35	0.35	mg/L	12/3/12 15:14	78537	XN
Trichloroethene	< 0.25	0.25	mg/L	12/3/12 15:14	78537	XN
Vinyl chloride	< 0.1	0.1	mg/L	12/3/12 15:14	78537	XN

### Qualifiers:

B - Analyte detected in the associated Method Blank

E - Estimated

H - Holding Time Exceeded

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

J - Analyte detected below quantitation limits

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## Report of Laboratory Analysis

**CLIENT:** Clean Harbors  
**Lab Order:** 12110796  
**Project:** RCRA Closure  
**Lab ID:** 12110796-02

**Client Sample ID:** RINSE-BLDG 25  
**Report Date:** 12/11/2012  
**Collection Date:** 11/28/2012  
**Matrix:** Liquid

Analyses	Result	EMT Reporting Limit	Units	Date Analyzed	Batch	Analyst
<b>Mercury, TCLP Extracted</b>						
<b>Method: SW7470A / SW1311 / HG PREP</b>						
Mercury	0.0344	0.005	mg/L	11/30/12 12:35	78493	IG
<b>Metals, TCLP Extracted</b>						
<b>Method: SW6020A / SW1311 / SW3015</b>						
Arsenic	< 0.0312	0.0312	mg/L	12/3/12 17:00	78492	AG
Barium	0.139	0.0312	mg/L	12/3/12 17:00	78492	AG
Cadmium	< 0.0063	0.0063	mg/L	12/3/12 17:00	78492	AG
Chromium	< 0.0438	0.0438	mg/L	12/3/12 17:00	78492	AG
Lead	0.0204	0.0125	mg/L	12/3/12 17:00	78492	AG
Selenium	< 0.112	0.112	mg/L	12/3/12 17:00	78492	AG
Silver	< 0.0125	0.0125	mg/L	12/3/12 17:00	78492	AG
<b>Acid Herbicides, TCLP</b>						
<b>Method: SW1311 / SW8321A / SW3510C</b>						
2,4,5-TP (Silvex)	< 0.5	0.5	mg/L	12/6/12	78599	DLO
2,4-D	< 5.	5.	mg/L	12/6/12	78599	DLO
<b>Pesticides, TCLP</b>						
<b>Method: SW1311 / SW8081 / SW3510C</b>						
Chlordane	< 0.03	0.03	mg/L	12/5/12 17:14	78598	LP
Endrin	< 0.02	0.02	mg/L	12/5/12 17:14	78598	LP
gamma-BHC	< 0.4	0.4	mg/L	12/5/12 17:14	78598	LP
Heptachlor	< 0.006	0.006	mg/L	12/5/12 17:14	78598	LP
Heptachlor epoxide	< 0.002	0.002	mg/L	12/5/12 17:14	78598	LP
Methoxychlor	< 10.	10.	mg/L	12/5/12 17:14	78598	LP
Toxaphene	< 0.5	0.5	mg/L	12/5/12 17:14	78598	LP
<b>Semivolatile Organic Compounds, TCLP</b>						
<b>Method: SW1311 / SW8270D / SW3510C</b>						
1,4-Dichlorobenzene	< 3.75	3.75	mg/L	12/4/12 00:24	78452	RYL
2,4,5-Trichlorophenol	< 200.	200.	mg/L	12/4/12 00:24	78452	RYL
2,4,6-Trichlorophenol	< 1.	1.	mg/L	12/4/12 00:24	78452	RYL
2,4-Dinitrotoluene	< 0.065	0.065	mg/L	12/4/12 00:24	78452	RYL
Hexachlorobenzene	< 0.065	0.065	mg/L	12/4/12 00:24	78452	RYL
Hexachlorobutadiene	< 0.25	0.25	mg/L	12/4/12 00:24	78452	RYL
Hexachloroethane	< 1.5	1.5	mg/L	12/4/12 00:24	78452	RYL
m,p-Cresol	< 100.	100.	mg/L	12/4/12 00:24	78452	RYL
Nitrobenzene	< 1.	1.	mg/L	12/4/12 00:24	78452	RYL

### Qualifiers:

B - Analyte detected in the associated Method Blank  
E - Estimated  
H - Holding Time Exceeded

S - Spike Recovery outside accepted recovery limits  
R - RPD outside accepted recovery limits  
J - Analyte detected below quantitation limits

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## Report of Laboratory Analysis

**CLIENT:** Clean Harbors  
**Lab Order:** 12110796  
**Project:** RCRA Closure  
**Lab ID:** 12110796-02

**Client Sample ID:** RINSE-BLDG 25  
**Report Date:** 12/11/2012  
**Collection Date:** 11/28/2012  
**Matrix:** Liquid

Analyses	Result	EMT Reporting Limit	Units	Date Analyzed	Batch	Analyst
o-Cresol	< 100.	100.	mg/L	12/4/12 00:24	78452	RYL
Pentachlorophenol	< 50.	50.	mg/L	12/4/12 00:24	78452	RYL
Pyridine	< 2.5	2.5	mg/L	12/4/12 00:24	78452	RYL
Cresols, total	< 100.	100.	mg/L	12/4/12 00:24	78452	RYL
<b>Volatile Organic Compounds, TCLP</b>		<b>Method: SW1311 / SW8260B / SW5030A</b>				
1,1-Dichloroethene	< 0.35	0.35	mg/L	12/3/12 16:20	78537	XN
1,2-Dichloroethane	< 0.25	0.25	mg/L	12/3/12 16:20	78537	XN
1,4-Dichlorobenzene	< 3.75	3.75	mg/L	12/3/12 16:20	78537	XN
2-Butanone	< 100.	100.	mg/L	12/3/12 16:20	78537	XN
Benzene	< 0.25	0.25	mg/L	12/3/12 16:20	78537	XN
Carbon tetrachloride	< 0.25	0.25	mg/L	12/3/12 16:20	78537	XN
Chlorobenzene	< 50.	50.	mg/L	12/3/12 16:20	78537	XN
Chloroform	< 3.	3.	mg/L	12/3/12 16:20	78537	XN
Tetrachloroethene	< 0.35	0.35	mg/L	12/3/12 16:20	78537	XN
Trichloroethene	< 0.25	0.25	mg/L	12/3/12 16:20	78537	XN
Vinyl chloride	< 0.1	0.1	mg/L	12/3/12 16:20	78537	XN

### Qualifiers:

B - Analyte detected in the associated Method Blank  
E - Estimated  
H - Holding Time Exceeded

S - Spike Recovery outside accepted recovery limits  
R - RPD outside accepted recovery limits  
J - Analyte detected below quantitation limits

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## Chain of Custody Record

TURNAROUND TIME:  
☒ RUSH  
 \_\_\_\_\_ day turnaround  
☐ ROUTINE

Due Date: ASAP COC #: 118107

[illegible]

**SPECIAL INSTRUCTIONS:**



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Jim Laubsted  
Clean Harbors  
11800 South Stony Island Avenue  
Chicago, IL 60617

August 16, 2012

RE Clean Harbors Waste Characterization

Lab Orders:  
12080292

Dear Mr. Jim Laubsted:

Enclosed are the analytical reports for the EMT Lab Order listed. Also included with this analytical report is a copy of the chain of custody associated with these samples. If you have any questions, please contact me at 847-967-6666.

Sincerely,

A handwritten signature in black ink, appearing to read 'Joe Pavilonis'.

Joe Pavilonis  
Project Manager

Approved by,

A handwritten signature in black ink, appearing to read 'Matthew Gregory'.

Matthew Gregory  
Acting Laboratory Director

This Report Contains 6 pages

The Contents of this report apply to the sample(s) analyzed. No duplication is allowed except in its entirety.

State of Illinois, NELAC Accredited Lab. No. 100256

State of Wisconsin, WDNR Accredited Lab No. 999888890

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**CLIENT:** Clean Harbors

**Date:** 8/16/2012

**Project:** Clean Harbors Waste Characterization

## CASE NARRATIVE

**Lab Order:** 12080292

Unless otherwise noted, samples were analyzed using the methods outlined in the following references:

Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, SW846, 3rd Edition

Unless otherwise noted, all method blanks, laboratory spikes, and/or matrix spikes met quality assurance objectives.

Sample results relate only to the analytes of interest tested and to the sample received at the laboratory.

All results are reported on a wet weight basis, unless otherwise noted. Dry weight adjusted results, reporting limits, method detection limits and dilution factors are indicated by the notation "dry" in the Units column. If present, a dilution factor will adjust the method detection limits and reporting limits.

The test results contained in this report meet all of the requirements of NELAC. Accreditation by the State of Illinois or Wisconsin is not an endorsement or a guarantee of the validity of data generated. For specific information regarding EMT's scope of accreditation, please contact your EMT project manager.

The Reporting Limit listed on the Report of Laboratory Analysis is EMT's reporting limit for the analyte reported. For most test methods this reporting limit is primarily based upon the lowest point in the calibration curve.

Analyst's initials of "OUT" indicate that the analyte was analyzed by a subcontracted laboratory.

### Method References:

SW=USEPA, Test Methods for Evaluating Solid Waste, SW-846.

E=USEPA Methods for the Determination of Inorganic Substances in Environmental Samples; Methods for Chemical Analysis of Water and Wastes; Methods for Organic Chemical Analysis of Municipal and Industrial Wastewater, 40 CFR Part 136, App A; methods for the Determination of Metals in Environmental Samples; Methods for the Determination of Organic Compounds in Drinking Water.

SM= APHA, Standard Methods for the Examination of Water and Wastewater.

D=ASTM, Annual Book of Standards

Batch numbers starting with a letter indicate an analytical batch while those that are exclusively numerals indicate a preparation batch.

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## Report of Laboratory Analysis

**CLIENT:** Clean Harbors **Client Sample ID:** C-1  
**Lab Order:** 12080292 **Report Date:** 8/16/2012  
**Project:** Clean Harbors Waste Characterization **Collection Date:** 8/8/2012  
**Lab ID:** 12080292-01 **Matrix:** Wastewater

Analyses	Result	EMT Reporting Limit	Units	Date Analyzed	Batch	Analyst
<b>Cyanide, Total</b>		<b>Method:</b>	<b>SM4500CN CE BY AQUACHEM / SM4500-CN</b>			
Cyanide	< 0.01	0.01	mg/L	8/13/12 10:39	75978	CS2
<b>Hexavalent Chromium</b>		<b>Method:</b>	<b>SM3500-CR D BY AQUACHEM</b>			
Chromium, Hexavalent	< 0.012	0.012	H mg/L	8/10/12 08:59	R173451	CS2
<b>Mercury by Cold Vapor AA</b>		<b>Method:</b>	<b>E245.1 / HG PREP</b>			
Mercury	< 0.0005	0.0005	mg/L	8/10/12 11:31	75969	IG
<b>Metals by ICP, Total</b>		<b>Method:</b>	<b>E200.7 / SW3015</b>			
Arsenic	< 0.0625	0.0625	mg/L	8/10/12 10:38	75960	AG
Lead	< 0.0625	0.0625	mg/L	8/10/12 10:38	75960	AG

### Qualifiers:

B - Analyte detected in the associated Method Blank

E - Estimated

H - Holding Time Exceeded

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

J - Analyte detected below quantitation limits

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## Report of Laboratory Analysis

**CLIENT:** Clean Harbors

**Client Sample ID:** C-2

**Lab Order:** 12080292

**Report Date:** 8/16/2012

**Project:** Clean Harbors Waste Characterization

**Collection Date:** 8/8/2012

**Lab ID:** 12080292-02

**Matrix:** Wastewater

Analyses	Result	EMT Reporting Limit	Units	Date Analyzed	Batch	Analyst
<b>Cyanide, Total</b>		<b>Method:</b>	<b>SM4500CN CE BY AQUACHEM / SM4500-CN</b>			
Cyanide	< 0.01	0.01	mg/L	8/13/12 10:39	75978	CS2
<b>Hexavalent Chromium</b>		<b>Method:</b>	<b>SM3500-CR D BY AQUACHEM</b>			
Chromium, Hexavalent	0.013	0.012	H mg/L	8/10/12 08:59	R173451	CS2
<b>Mercury by Cold Vapor AA</b>		<b>Method:</b>	<b>E245.1 / HG PREP</b>			
Mercury	< 0.0005	0.0005	mg/L	8/10/12 11:31	75969	IG
<b>Metals by ICP, Total</b>		<b>Method:</b>	<b>E200.7 / SW3015</b>			
Arsenic	< 0.0625	0.0625	mg/L	8/10/12 10:38	75960	AG
Lead	< 0.0625	0.0625	mg/L	8/10/12 10:38	75960	AG

### Qualifiers:

B - Analyte detected in the associated Method Blank

S - Spike Recovery outside accepted recovery limits

E - Estimated

R - RPD outside accepted recovery limits

H - Holding Time Exceeded

J - Analyte detected below quantitation limits

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## Report of Laboratory Analysis

**CLIENT:** Clean Harbors **Client Sample ID:** INSULATION  
**Lab Order:** 12080292 **Report Date:** 8/16/2012  
**Project:** Clean Harbors Waste Characterization **Collection Date:** 8/7/2012  
**Lab ID:** 12080292-03 **Matrix:** Solid

Analyses	Result	EMT Reporting Limit	Units	Date Analyzed	Batch	Analyst
Flash Point, Open Cup		Method: ASTM D92-90				
Ignitibility (open cup)	>180	35.	°F	8/15/12 08:30	R173648	SG

### Qualifiers:

B - Analyte detected in the associated Method Blank  
E - Estimated  
H - Holding Time Exceeded

S - Spike Recovery outside accepted recovery limits  
R - RPD outside accepted recovery limits  
J - Analyte detected below quantitation limits

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Morton Grove, Illinois 60053-3203

## Chain of Custody Record

847-967-6666  
FAX: 847-967-6735  
www.emt.com

Due Date: \_\_\_\_\_ COC #: 115392

TURNAROUND TIME:  
☐ RUSH  
\_\_\_\_\_ day turnaround  
☒ ROUTINE

Company: <u>Clean Harbors of Chicago</u> Address: <u>11800 S. Stony Island</u> <u>Chicago, IL</u> Phone #: <u>(773) 646-6202</u> Fax #: <u>( )</u> P.O. #: _____ Proj. #: _____ Client Contact: <u>Jim Lamberton</u> Project ID / Location: <u>Clean Harbors West Chicago, IL</u>					<b>Analyses</b> Sample Type: 1. Waste Water 4. Sludge 7. Groundwater (filtered) 2. Drinking Water 5. Oil 8. Other 3. Soil 6. Groundwater Container Type: P - Plastic V - VOC Vial O - Other G - Glass B - Tedlar Bag Preservative: 1. None 4. NaOH 7. Zn Ace 2. H <sub>2</sub> SO <sub>4</sub> 5. HCl 8. Other 3. HNO <sub>3</sub> 6. MeOH					<b>EMT USE ONLY</b> EMT WORKORDER <u>2080292</u>										
Sample I.D.	Sample Type	Container			Sampling					Preservation		Field	Lab							
		Size	Type	No.	By	Date	Time	pH	Temp.											
C-1	1	P	P	1	DJ	8/8/12						1								
C-1	1	P	P	1	DJ	8/8/12						3								
C-1	1	P	P	1	DJ	8/8/12						4								
C-2	1	P	P	1	DJ	8/8/12						1								
C-2	1	P	P	1	DJ	8/8/12						3								
C-2	1	P	P	1	DJ	8/8/12						4								
INSULATION	B	P	G	1	DJ	8/7/12						1								
Relinquished By: <u>[Signature]</u> Date: <u>8-9-12</u> Time: <u>15:15</u> Relinquished By: <u>[Signature]</u> Date: <u>8-9-12</u> Time: <u>19:15</u> Relinquished By: _____ Date: _____ Time: _____ Received By: <u>[Signature]</u> Date: <u>8-9-12</u> Time: <u>15:15</u> Received By: _____ Date: _____ Time: _____ Received For Lab By: <u>[Signature]</u> Date: <u>8-9-12</u> Time: <u>19:15</u>																				
EMT USE ONLY Client Code: <u>CLHARB</u> EMT Project I.D.: <u>Clean Harbors West Chicago</u> Jar Lot No. _____										<input type="checkbox"/> SAMPLE RECEIVED ONCE <input checked="" type="checkbox"/> TEMPERATURE (Must be recorded if sampling was greater than 6 hrs. prior to sample receipt) <u>4</u> <b>EMT SAMPLE RETURN POLICY ON BACK</b>										

SPECIAL INSTRUCTIONS:

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Rick Chapp  
Clean Harbors  
11800 South Stony Island Avenue  
Chicago, IL 60617

December 17, 2012

RE RCRA Closure

Lab Orders:  
12120184

Dear Mr. Rick Chapp:

Enclosed are the analytical reports for the EMT Lab Order listed. Also included with this analytical report is a copy of the chain of custody associated with these samples. If you have any questions, please contact me at 847-967-6666.

Sincerely,

Joe Pavilonis  
Project Manager

Approved by,

Marilyn Krueding  
Laboratory Director

This Report Contains 5 pages

The Contents of this report apply to the sample(s) analyzed. No duplication is allowed except in its entirety.

State of Illinois, NELAC Accredited Lab. No. 100256  
State of Wisconsin, WDNR Accredited Lab No. 999888890

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**CLIENT:** Clean Harbors

**Date:** 12/17/2012

**Project:** RCRA Closure

## CASE NARRATIVE

**Lab Order:** 12120184

Unless otherwise noted, samples were analyzed using the methods outlined in the following references:

Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, SW846, 3rd Edition

Unless otherwise noted, all method blanks, laboratory spikes, and/or matrix spikes met quality assurance objectives.

Sample results relate only to the analytes of interest tested and to the sample received at the laboratory.

All results are reported on a wet weight basis, unless otherwise noted. Dry weight adjusted results, reporting limits, method detection limits and dilution factors are indicated by the notation "dry" in the Units column. If present, a dilution factor will adjust the method detection limits and reporting limits.

The test results contained in this report meet all of the requirements of NELAC. Accreditation by the State of Illinois or Wisconsin is not an endorsement or a guarantee of the validity of data generated. For specific information regarding EMT's scope of accreditation, please contact your EMT project manager.

The Reporting Limit listed on the Report of Laboratory Analysis is EMT's reporting limit for the analyte reported. For most test methods this reporting limit is primarily based upon the lowest point in the calibration curve.

Analyst's initials of "OUT" indicate that the analyte was analyzed by a subcontracted laboratory.

### Method References:

SW=USEPA, Test Methods for Evaluating Solid Waste, SW-846.

E=USEPA Methods for the Determination of Inorganic Substances in Environmental Samples; Methods for Chemical Analysis of Water and Wastes; Methods for Organic Chemical Analysis of Municipal and Industrial Wastewater, 40 CFR Part 136, App A; methods for the Determination of Metals in Environmental Samples; Methods for the Determination of Organic Compounds in Drinking Water.

SM= APHA, Standard Methods for the Examination of Water and Wastewater.

D=ASTM, Annual Book of Standards

Batch numbers starting with a letter indicate an analytical batch while those that are exclusively numerals indicate a preparation batch.





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## Report of Laboratory Analysis

**CLIENT:** Clean Harbors  
**Lab Order:** 12120184  
**Project:** RCRA Closure  
**Lab ID:** 12120184-01

**Client Sample ID:** TANK FARM PUMP HOUSE  
**Report Date:** 12/17/2012  
**Collection Date:** 12/6/2012  
**Matrix:** Liquid

Analyses	Result	EMT Reporting Limit	Units	Date Analyzed	Batch	Analyst
<b>Mercury, TCLP Extracted</b>						
		<b>Method: SW7470A / SW1311 / HG PREP</b>				
Mercury	< 0.0005	0.0005	mg/L	12/12/12 12:41	78775	IG
<b>Metals, TCLP Extracted</b>						
		<b>Method: SW6020A / SW1311 / SW3015</b>				
Arsenic	< 0.0312	0.0312	mg/L	12/11/12 13:01	78726	AG
Barium	< 0.0772	0.0312	mg/L	12/11/12 13:01	78726	AG
Cadmium	< 0.0063	0.0063	mg/L	12/11/12 13:01	78726	AG
Chromium	< 0.0438	0.0438	mg/L	12/11/12 13:01	78726	AG
Lead	< 0.0125	0.0125	mg/L	12/11/12 13:01	78726	AG
Selenium	< 0.112	0.112	mg/L	12/11/12 13:01	78726	AG
Silver	< 0.0125	0.0125	mg/L	12/11/12 13:01	78726	AG
<b>Acid Herbicides, TCLP</b>						
		<b>Method: SW1311 / SW8321A / SW3510C</b>				
2,4,5-TP (Silvex)	< 0.5	0.5	mg/L	12/14/12	78710	LBI
2,4-D	< 5.	5.	mg/L	12/14/12	78710	LBI
<b>Pesticides, TCLP</b>						
		<b>Method: SW1311 / SW8081 / SW3510C</b>				
Chlordane	< 0.03	0.03	mg/L	12/14/12 12:01	78705	LP
Endrin	< 0.02	0.02	mg/L	12/14/12 12:01	78705	LP
gamma-BHC	< 0.4	0.4	mg/L	12/14/12 12:01	78705	LP
Heptachlor	< 0.006	0.006	mg/L	12/14/12 12:01	78705	LP
Heptachlor epoxide	< 0.002	0.002	mg/L	12/14/12 12:01	78705	LP
Methoxychlor	< 10.	10.	mg/L	12/14/12 12:01	78705	LP
Toxaphene	< 0.5	0.5	mg/L	12/14/12 12:01	78705	LP
<b>Semivolatile Organic Compounds, TCLP</b>						
		<b>Method: SW1311 / SW8270D / SW3510C</b>				
1,4-Dichlorobenzene	< 3.75	3.75	mg/L	12/13/12 14:40	78782	RYL
2,4,5-Trichlorophenol	< 200.	200.	mg/L	12/13/12 14:40	78782	RYL
2,4,6-Trichlorophenol	< 1.	1.	mg/L	12/13/12 14:40	78782	RYL
2,4-Dinitrotoluene	< 0.065	0.065	mg/L	12/13/12 14:40	78782	RYL
Hexachlorobenzene	< 0.065	0.065	mg/L	12/13/12 14:40	78782	RYL
Hexachlorobutadiene	< 0.25	0.25	mg/L	12/13/12 14:40	78782	RYL
Hexachloroethane	< 1.5	1.5	mg/L	12/13/12 14:40	78782	RYL
m,p-Cresol	< 100.	100.	mg/L	12/13/12 14:40	78782	RYL
Nitrobenzene	< 1.	1.	mg/L	12/13/12 14:40	78782	RYL

### Qualifiers:

B - Analyte detected in the associated Method Blank

E - Estimated

H - Holding Time Exceeded

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

J - Analyte detected below quantitation limits

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## Report of Laboratory Analysis

**CLIENT:** Clean Harbors  
**Lab Order:** 12120184  
**Project:** RCRA Closure  
**Lab ID:** 12120184-01

**Client Sample ID:** TANK FARM PUMP HOUSE  
**Report Date:** 12/17/2012  
**Collection Date:** 12/6/2012  
**Matrix:** Liquid

Analyses	Result	EMT Reporting Limit	Units	Date Analyzed	Batch	Analyst
o-Cresol	< 100.	100.	mg/L	12/13/12 14:40	78782	RYL
Pentachlorophenol	< 50.	50.	mg/L	12/13/12 14:40	78782	RYL
Pyridine	< 2.5	2.5	mg/L	12/13/12 14:40	78782	RYL
Cresols, total	< 100.	100.	mg/L	12/13/12 14:40	78782	RYL
<b>Volatile Organic Compounds, TCLP</b>		<b>Method: SW1311 / SW8260B / SW5030A</b>				
1,1-Dichloroethene	< 0.35	0.35	mg/L	12/11/12 18:25	78755	JL
1,2-Dichloroethane	< 0.25	0.25	mg/L	12/11/12 18:25	78755	JL
1,4-Dichlorobenzene	< 3.75	3.75	mg/L	12/11/12 18:25	78755	JL
2-Butanone	< 100.	100.	mg/L	12/11/12 18:25	78755	JL
Benzene	< 0.25	0.25	mg/L	12/11/12 18:25	78755	JL
Carbon tetrachloride	< 0.25	0.25	mg/L	12/11/12 18:25	78755	JL
Chlorobenzene	< 50.	50.	mg/L	12/11/12 18:25	78755	JL
Chloroform	< 3.	3.	mg/L	12/11/12 18:25	78755	JL
Tetrachloroethene	< 0.35	0.35	mg/L	12/11/12 18:25	78755	JL
Trichloroethene	< 0.25	0.25	mg/L	12/11/12 18:25	78755	JL
Vinyl chloride	< 0.1	0.1	mg/L	12/11/12 18:25	78755	JL

### Qualifiers:

B - Analyte detected in the associated Method Blank  
E - Estimated  
H - Holding Time Exceeded

S - Spike Recovery outside accepted recovery limits  
R - RPD outside accepted recovery limits  
J - Analyte detected below quantitation limits

environmental laboratory and testing services  
water | soil | air | product | waste



**SPECIAL INSTRUCTIONS:**

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Rick Chapp  
Clean Harbors  
11800 South Stony Island Avenue  
Chicago, IL 60617

December 21, 2012

RE RCRA Analysis

Lab Orders:  
12120275

Dear Mr. Rick Chapp:

Enclosed are the analytical reports for the EMT Lab Order listed. Also included with this analytical report is a copy of the chain of custody associated with these samples. If you have any questions, please contact me at 847-967-6666.

Sincerely,

Joe Pavilonis  
Project Manager

Approved by,

Marilyn Krueding  
Laboratory Director

This Report Contains 8 pages

The Contents of this report apply to the sample(s) analyzed. No duplication is allowed except in its entirety.

State of Illinois, NELAC Accredited Lab. No. 100256  
State of Wisconsin, WDNR Accredited Lab No. 999888890

environmental laboratory and testing services

water	soil	air	product	waste
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**CLIENT:** Clean Harbors  
**Project:** RCRA Analysis  
**Lab Order:** 12120275

**Date:** 12/21/2012

## CASE NARRATIVE

Unless otherwise noted, samples were analyzed using the methods outlined in the following references:

Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, SW846, 3rd Edition

Unless otherwise noted, all method blanks, laboratory spikes, and/or matrix spikes met quality assurance objectives.

Sample results relate only to the analytes of interest tested and to the sample received at the laboratory.

All results are reported on a wet weight basis, unless otherwise noted. Dry weight adjusted results, reporting limits, method detection limits and dilution factors are indicated by the notation "dry" in the Units column. If present, a dilution factor will adjust the method detection limits and reporting limits.

The test results contained in this report meet all of the requirements of NELAC. Accreditation by the State of Illinois or Wisconsin is not an endorsement or a guarantee of the validity of data generated. For specific information regarding EMT's scope of accreditation, please contact your EMT project manager.

The Reporting Limit listed on the Report of Laboratory Analysis is EMT's reporting limit for the analyte reported. For most test methods this reporting limit is primarily based upon the lowest point in the calibration curve.

Analyst's initials of "OUT" indicate that the analyte was analyzed by a subcontracted laboratory.

### Method References:

SW=USEPA, Test Methods for Evaluating Solid Waste, SW-846.

E=USEPA Methods for the Determination of Inorganic Substances in Environmental Samples; Methods for Chemical Analysis of Water and Wastes; Methods for Organic Chemical Analysis of Municipal and Industrial Wastewater, 40 CFR Part 136, App A; methods for the Determination of Metals in Environmental Samples; Methods for the Determination of Organic Compounds in Drinking Water.

SM= APHA, Standard Methods for the Examination of Water and Wastewater.

D=ASTM, Annual Book of Standards

Batch numbers starting with a letter indicate an analytical batch while those that are exclusively numerals indicate a preparation batch.

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**CLIENT:** Clean Harbors  
**Project:** RCRA Analysis  
**Lab Order:** 12120275

**Date:** 12/21/2012

## CASE NARRATIVE

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Analytical Comments for METHOD 624\_w, MB-78826: The method blank contamination is below the MDL value.

Analytical Comments for METHOD 624\_w, MB-78826: The method blank contaminations for 1,2,4-Trimethylbenzene, 1,3,5-Trimethylbenzene and Ethylbenzene are below the MDL values, and for Naphthalene below the reporting limit.

Analytical Comments for METHOD 1311\_8081, CCV 0.08 ng/ul: The recovery of some compounds in the last check standard was outside of 85-115% limit due to very contaminated samples previously run in the same analytical batch.

Prep Comments for 3510\_H, 12120275-01A, 02A: The prep HoldTime was exceeded by 1 days.

environmental laboratory and testing services

water	soil	air	product	waste
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## Report of Laboratory Analysis

**CLIENT:** Clean Harbors  
**Lab Order:** 12120275  
**Project:** RCRA Analysis  
**Lab ID:** 12120275-01

**Client Sample ID:** Rinse water-Bldg 25  
**Report Date:** 12/21/2012  
**Collection Date:** 12/10/2012  
**Matrix:** Wastewater

Analyses	Result	EMT Reporting Limit	Units	Date Analyzed	Batch	Analyst
<b>Mercury, TCLP Extracted</b>						
		<b>Method: SW7470A / SW1311 / HG PREP</b>				
Mercury	0.00096	0.0005	mg/L	12/13/12 12:19	78813	IG
<b>Metals, TCLP Extracted</b>						
		<b>Method: SW6020A / SW1311 / SW3015</b>				
Arsenic	< 0.0312	0.0312	mg/L	12/13/12 19:18	78800	AG
Barium	0.0355	0.0312	mg/L	12/13/12 19:18	78800	AG
Cadmium	< 0.0063	0.0063	mg/L	12/13/12 19:18	78800	AG
Chromium	< 0.0438	0.0438	mg/L	12/13/12 19:18	78800	AG
Lead	< 0.0125	0.0125	mg/L	12/13/12 19:18	78800	AG
Selenium	< 0.112	0.112	mg/L	12/13/12 19:18	78800	AG
Silver	< 0.0125	0.0125	mg/L	12/13/12 19:18	78800	AG
<b>Acid Herbicides, TCLP</b>						
		<b>Method: SW1311 / SW8321A / SW3510C</b>				
2,4,5-TP (Silvex)	< 0.5	0.5	mg/L	12/18/12	78888	DLO
2,4-D	< 5.	5.	mg/L	12/18/12	78888	DLO
<b>Pesticides, TCLP</b>						
		<b>Method: SW1311 / SW8081 / SW3510C</b>				
Chlordane	< 0.03	0.03	mg/L	12/17/12 20:08	78815	LP
Endrin	< 0.02	0.02	mg/L	12/17/12 20:08	78815	LP
gamma-BHC	< 0.4	0.4	mg/L	12/17/12 20:08	78815	LP
Heptachlor	< 0.006	0.006	mg/L	12/17/12 20:08	78815	LP
Heptachlor epoxide	< 0.002	0.002	mg/L	12/17/12 20:08	78815	LP
Methoxychlor	< 10.	10.	mg/L	12/18/12 15:56	78815	LP
Toxaphene	< 0.5	0.5	mg/L	12/17/12 20:08	78815	LP
<b>Semivolatile Organic Compounds, TCLP</b>						
		<b>Method: SW1311 / SW8270D / SW3510C</b>				
1,4-Dichlorobenzene	< 3.75	3.75	mg/L	12/19/12 03:36	78854	RYL
2,4,5-Trichlorophenol	< 200.	200.	mg/L	12/19/12 03:36	78854	RYL
2,4,6-Trichlorophenol	< 1.	1.	mg/L	12/19/12 03:36	78854	RYL
2,4-Dinitrotoluene	< 0.065	0.065	mg/L	12/19/12 03:36	78854	RYL
Hexachlorobenzene	< 0.065	0.065	mg/L	12/19/12 03:36	78854	RYL
Hexachlorobutadiene	< 0.25	0.25	mg/L	12/19/12 03:36	78854	RYL
Hexachloroethane	< 1.5	1.5	mg/L	12/19/12 03:36	78854	RYL
m,p-Cresol	< 100.	100.	mg/L	12/19/12 03:36	78854	RYL
Nitrobenzene	< 1.	1.	mg/L	12/19/12 03:36	78854	RYL

**Qualifiers:** B - Analyte detected in the associated Method Blank  
E - Estimated  
H - Holding Time Exceeded

S - Spike Recovery outside accepted recovery limits  
R - RPD outside accepted recovery limits  
J - Analyte detected below quantitation limits

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## Report of Laboratory Analysis

**CLIENT:** Clean Harbors  
**Lab Order:** 12120275  
**Project:** RCRA Analysis  
**Lab ID:** 12120275-01

**Client Sample ID:** Rinse water-Bldg 25  
**Report Date:** 12/21/2012  
**Collection Date:** 12/10/2012  
**Matrix:** Wastewater

Analyses	Result	EMT Reporting Limit	Units	Date Analyzed	Batch	Analyst
o-Cresol	< 100.	100.	mg/L	12/19/12 03:36	78854	RYL
Pentachlorophenol	< 50.	50.	mg/L	12/19/12 03:36	78854	RYL
Pyridine	< 2.5	2.5	mg/L	12/19/12 03:36	78854	RYL
Cresols, total	< 100.	100.	mg/L	12/19/12 03:36	78854	RYL
<b>Volatile Organic Compounds, TCLP</b>						
<b>Method: SW1311 / SW8260B / SW5030A</b>						
1,1-Dichloroethene	< 0.35	0.35	mg/L	12/13/12 18:14	78826	XN
1,2-Dichloroethane	< 0.25	0.25	mg/L	12/13/12 18:14	78826	XN
1,4-Dichlorobenzene	< 3.75	3.75	mg/L	12/13/12 18:14	78826	XN
2-Butanone	< 100.	100.	mg/L	12/13/12 18:14	78826	XN
Benzene	< 0.25	0.25	mg/L	12/13/12 18:14	78826	XN
Carbon tetrachloride	< 0.25	0.25	mg/L	12/13/12 18:14	78826	XN
Chlorobenzene	< 50.	50.	mg/L	12/13/12 18:14	78826	XN
Chloroform	< 3.	3.	mg/L	12/13/12 18:14	78826	XN
Tetrachloroethene	< 0.35	0.35	mg/L	12/13/12 18:14	78826	XN
Trichloroethene	< 0.25	0.25	mg/L	12/13/12 18:14	78826	XN
Vinyl chloride	< 0.1	0.1	mg/L	12/13/12 18:14	78826	XN

### Qualifiers:

B - Analyte detected in the associated Method Blank

E - Estimated

H - Holding Time Exceeded

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

J - Analyte detected below quantitation limits

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## Report of Laboratory Analysis

**CLIENT:** Clean Harbors  
**Lab Order:** 12120275  
**Project:** RCRA Analysis  
**Lab ID:** 12120275-02

**Client Sample ID:** RW Hood-Bldg 25  
**Report Date:** 12/21/2012  
**Collection Date:** 12/10/2012  
**Matrix:** Wastewater

Analyses	Result	EMT Reporting Limit	Units	Date Analyzed	Batch	Analyst
<b>Mercury, TCLP Extracted</b>						
		<b>Method: SW7470A / SW1311 / HG PREP</b>				
Mercury	0.00089	0.0005	mg/L	12/13/12 12:19	78813	IG
<b>Metals, TCLP Extracted</b>						
		<b>Method: SW6020A / SW1311 / SW3015</b>				
Arsenic	0.0457	0.0312	mg/L	12/13/12 19:24	78800	AG
Barium	0.0422	0.0312	mg/L	12/13/12 19:24	78800	AG
Cadmium	< 0.0063	0.0063	mg/L	12/13/12 19:24	78800	AG
Chromium	< 0.0438	0.0438	mg/L	12/13/12 19:24	78800	AG
Lead	< 0.0125	0.0125	mg/L	12/13/12 19:24	78800	AG
Selenium	< 0.112	0.112	mg/L	12/13/12 19:24	78800	AG
Silver	< 0.0125	0.0125	mg/L	12/13/12 19:24	78800	AG
<b>Acid Herbicides, TCLP</b>						
		<b>Method: SW1311 / SW8321A / SW3510C</b>				
2,4,5-TP (Silvex)	< 0.5	0.5	mg/L	12/18/12	78888	DLO
2,4-D	< 5.	5.	mg/L	12/18/12	78888	DLO
<b>Pesticides, TCLP</b>						
		<b>Method: SW1311 / SW8081 / SW3510C</b>				
Chlordane	< 0.03	0.03	mg/L	12/19/12 12:28	78815	LP
Endrin	< 0.02	0.02	mg/L	12/17/12 20:56	78815	LP
gamma-BHC	< 0.4	0.4	mg/L	12/17/12 20:56	78815	LP
Heptachlor	< 0.006	0.006	mg/L	12/17/12 20:56	78815	LP
Heptachlor epoxide	< 0.002	0.002	mg/L	12/17/12 20:56	78815	LP
Methoxychlor	< 10.	10.	mg/L	12/18/12 16:44	78815	LP
Toxaphene	< 0.5	0.5	mg/L	12/17/12 20:56	78815	LP
<b>Semivolatile Organic Compounds, TCLP</b>						
		<b>Method: SW1311 / SW8270D / SW3510C</b>				
1,4-Dichlorobenzene	< 3.75	3.75	mg/L	12/19/12 04:19	78854	RYL
2,4,5-Trichlorophenol	< 200.	200.	mg/L	12/19/12 04:19	78854	RYL
2,4,6-Trichlorophenol	< 1.	1.	mg/L	12/19/12 04:19	78854	RYL
2,4-Dinitrotoluene	< 0.065	0.065	mg/L	12/19/12 04:19	78854	RYL
Hexachlorobenzene	< 0.065	0.065	mg/L	12/19/12 04:19	78854	RYL
Hexachlorobutadiene	< 0.25	0.25	mg/L	12/19/12 04:19	78854	RYL
Hexachloroethane	< 1.5	1.5	mg/L	12/19/12 04:19	78854	RYL
m,p-Cresol	< 100.	100.	mg/L	12/19/12 04:19	78854	RYL
Nitrobenzene	< 1.	1.	mg/L	12/19/12 04:19	78854	RYL

**Qualifiers:** B - Analyte detected in the associated Method Blank  
E - Estimated  
H - Holding Time Exceeded

S - Spike Recovery outside accepted recovery limits  
R - RPD outside accepted recovery limits  
J - Analyte detected below quantitation limits

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## Report of Laboratory Analysis

**CLIENT:** Clean Harbors  
**Lab Order:** 12120275  
**Project:** RCRA Analysis  
**Lab ID:** 12120275-02

**Client Sample ID:** RW Hood-Bldg 25  
**Report Date:** 12/21/2012  
**Collection Date:** 12/10/2012  
**Matrix:** Wastewater

Analyses	Result	EMT Reporting Limit	Units	Date Analyzed	Batch	Analyst
o-Cresol	< 100.	100.	mg/L	12/19/12 04:19	78854	RYL
Pentachlorophenol	< 50.	50.	mg/L	12/19/12 04:19	78854	RYL
Pyridine	< 2.5	2.5	mg/L	12/19/12 04:19	78854	RYL
Cresols, total	< 100.	100.	mg/L	12/19/12 04:19	78854	RYL
<b>Volatile Organic Compounds, TCLP</b>		<b>Method: SW1311 / SW8260B / SW5030A</b>				
1,1-Dichloroethene	< 0.35	0.35	mg/L	12/13/12 18:47	78826	XN
1,2-Dichloroethane	< 0.25	0.25	mg/L	12/13/12 18:47	78826	XN
1,4-Dichlorobenzene	< 3.75	3.75	mg/L	12/13/12 18:47	78826	XN
2-Butanone	< 100.	100.	mg/L	12/13/12 18:47	78826	XN
Benzene	< 0.25	0.25	mg/L	12/13/12 18:47	78826	XN
Carbon tetrachloride	< 0.25	0.25	mg/L	12/13/12 18:47	78826	XN
Chlorobenzene	< 50.	50.	mg/L	12/13/12 18:47	78826	XN
Chloroform	< 3.	3.	mg/L	12/13/12 18:47	78826	XN
Tetrachloroethene	< 0.35	0.35	mg/L	12/13/12 18:47	78826	XN
Trichloroethene	< 0.25	0.25	mg/L	12/13/12 18:47	78826	XN
Vinyl chloride	< 0.1	0.1	mg/L	12/13/12 18:47	78826	XN

### Qualifiers:

B - Analyte detected in the associated Method Blank  
E - Estimated  
H - Holding Time Exceeded

S - Spike Recovery outside accepted recovery limits  
R - RPD outside accepted recovery limits  
J - Analyte detected below quantitation limits

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## Chain of Custody Record

☒ ROUTINE

Due Date: - - COC #: 115755

# 12/20275

TCLP (All)

Jar Lot No.

**EMT SAMPLE RETURN  
POLICY ON BACK**

**SPECIAL INSTRUCTIONS:**

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Jim Laubsted  
Clean Harbors  
11800 South Stony Island Avenue  
Chicago, IL 60617

December 27, 2012

RE Clean Harbors Waste Characterization

Lab Orders:  
12120357

Dear Mr. Jim Laubsted:

Enclosed are the analytical reports for the EMT Lab Order listed. Also included with this analytical report is a copy of the chain of custody associated with these samples. If you have any questions, please contact me at 847-967-6666.

Sincerely,

Joe Pavilonis  
Project Manager

Approved by,

Marilyn Krueding  
Laboratory Director

This Report Contains 6 pages

The Contents of this report apply to the sample(s) analyzed. No duplication is allowed except in its entirety.

State of Illinois, NELAC Accredited Lab. No. 100256  
State of Wisconsin, WDNR Accredited Lab No. 999888890

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**CLIENT:** Clean Harbors

**Date:** 12/27/2012

**Project:** Clean Harbors Waste Characterization

## CASE NARRATIVE

**Lab Order:** 12120357

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Unless otherwise noted, samples were analyzed using the methods outlined in the following references:

Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, SW846, 3rd Edition

Unless otherwise noted, all method blanks, laboratory spikes, and/or matrix spikes met quality assurance objectives.

Sample results relate only to the analytes of interest tested and to the sample received at the laboratory.

All results are reported on a wet weight basis, unless otherwise noted. Dry weight adjusted results, reporting limits, method detection limits and dilution factors are indicated by the notation "dry" in the Units column. If present, a dilution factor will adjust the method detection limits and reporting limits.

The test results contained in this report meet all of the requirements of NELAC. Accreditation by the State of Illinois or Wisconsin is not an endorsement or a guarantee of the validity of data generated. For specific information regarding EMT's scope of accreditation, please contact your EMT project manager.

The Reporting Limit listed on the Report of Laboratory Analysis is EMT's reporting limit for the analyte reported. For most test methods this reporting limit is primarily based upon the lowest point in the calibration curve.

Analyst's initials of "OUT" indicate that the analyte was analyzed by a subcontracted laboratory.

### Method References:

SW=USEPA, Test Methods for Evaluating Solid Waste, SW-846.

E=USEPA Methods for the Determination of Inorganic Substances in Environmental Samples; Methods for Chemical Analysis of Water and Wastes; Methods for Organic Chemical Analysis of Municipal and Industrial Wastewater, 40 CFR Part 136, App A; methods for the Determination of Metals in Environmental Samples; Methods for the Determination of Organic Compounds in Drinking Water.

SM= APHA, Standard Methods for the Examination of Water and Wastewater.

D=ASTM, Annual Book of Standards

Batch numbers starting with a letter indicate an analytical batch while those that are exclusively numerals indicate a preparation batch.



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**CLIENT:** Clean Harbors

**Date:** 12/27/2012

**Project:** Clean Harbors Waste Characterization

## CASE NARRATIVE

**Lab Order:** 12120357

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Prep Comments for 3510\_B, 12120357-01A: The prep HoldTime was exceeded by 3 days.



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## Report of Laboratory Analysis

**CLIENT:** Clean Harbors **Client Sample ID:** RINSE WAATER PAD#15  
**Lab Order:** 12120357 **Report Date:** 12/27/2012  
**Project:** Clean Harbors Waste Characterization **Collection Date:** 12/10/2012 2:00:00 PM  
**Lab ID:** 12120357-01 **Matrix:** Wastewater

Analyses	Result	EMT Reporting Limit	Units	Date Analyzed	Batch	Analyst
<b>ICP Metals, TCLP Extracted</b>						
<b>Method: SW6010C / SW1311 / SW3015</b>						
Arsenic	< 0.25	0.25	mg/L	12/19/12	78900	AG
Barium	< 0.25	0.25	mg/L	12/19/12	78900	AG
Cadmium	< 0.25	0.25	mg/L	12/19/12	78900	AG
Chromium	< 0.25	0.25	mg/L	12/19/12	78900	AG
Lead	< 0.25	0.25	mg/L	12/19/12	78900	AG
Selenium	< 0.25	0.25	mg/L	12/19/12	78900	AG
Silver	< 0.25	0.25	mg/L	12/19/12	78900	AG
<b>Mercury, TCLP Extracted</b>						
<b>Method: SW7470A / SW1311 / HG PREP</b>						
Mercury	< 0.00125	0.00125	mg/L	12/18/12 14:34	78903	IG
<b>Acid Herbicides, TCLP</b>						
<b>Method: SW1311 / SW8321A / SW3510C</b>						
2,4,5-TP (Silvex)	< 0.5	0.5	mg/L	12/20/12	78888	DLO
2,4-D	< 5.	5.	mg/L	12/20/12	78888	DLO
<b>Pesticides, TCLP</b>						
<b>Method: SW1311 / SW8081 / SW3510C</b>						
Chlordane	< 0.03	0.03	mg/L	12/20/12 16:29	78959	LP
Endrin	< 0.02	0.02	mg/L	12/20/12 16:29	78959	LP
gamma-BHC	< 0.4	0.4	mg/L	12/20/12 16:29	78959	LP
Heptachlor	< 0.006	0.006	mg/L	12/20/12 16:29	78959	LP
Heptachlor epoxide	< 0.002	0.002	mg/L	12/20/12 16:29	78959	LP
Methoxychlor	< 10.	10.	mg/L	12/20/12 16:29	78959	LP
Toxaphene	< 0.5	0.5	mg/L	12/20/12 16:29	78959	LP
<b>Semivolatile Organic Compounds, TCLP</b>						
<b>Method: SW1311 / SW8270D / SW3510C</b>						
1,4-Dichlorobenzene	< 3.75	3.75	mg/L	12/22/12 01:47	78943	RYL
2,4,5-Trichlorophenol	< 200.	200.	mg/L	12/22/12 01:47	78943	RYL
2,4,6-Trichlorophenol	< 1.	1.	mg/L	12/22/12 01:47	78943	RYL
2,4-Dinitrotoluene	< 0.065	0.065	mg/L	12/22/12 01:47	78943	RYL
Hexachlorobenzene	< 0.065	0.065	mg/L	12/22/12 01:47	78943	RYL
Hexachlorobutadiene	< 0.25	0.25	mg/L	12/22/12 01:47	78943	RYL
Hexachloroethane	< 1.5	1.5	mg/L	12/22/12 01:47	78943	RYL
m,p-Cresol	< 100.	100.	mg/L	12/22/12 01:47	78943	RYL
Nitrobenzene	< 1.	1.	mg/L	12/22/12 01:47	78943	RYL

**Qualifiers:** B - Analyte detected in the associated Method Blank S - Spike Recovery outside accepted recovery limits  
E - Estimated R - RPD outside accepted recovery limits  
H - Holding Time Exceeded J - Analyte detected below quantitation limits

environmental laboratory and testing services  
water | soil | air | product | waste

# ENVIRONMENTAL MONITORING AND TECHNOLOGIES, INC.



3100 North Austin • Morton Grove, IL 60053-3203  
Tel: 847.967.6666 • 847.216.0663 • Fax: 847.967.6736 • www.emt.com

## Report of Laboratory Analysis

**CLIENT:** Clean Harbors

**Client Sample ID:** RINSE WATER PAD#15

**Lab Order:** 12120357

**Report Date:** 12/27/2012

**Project:** Clean Harbors Waste Characterization

**Collection Date:** 12/10/2012 2:00:00 PM

**Lab ID:** 12120357-01

**Matrix:** Wastewater

Analyses	Result	EMT Reporting Limit	Units	Date Analyzed	Batch	Analyst
o-Cresol	< 100.	100.	mg/L	12/22/12 01:47	78943	RYL
Pentachlorophenol	< 50.	50.	mg/L	12/22/12 01:47	78943	RYL
Pyridine	< 2.5	2.5	mg/L	12/22/12 01:47	78943	RYL
Cresols, total	< 100.	100.	mg/L	12/22/12 01:47	78943	RYL
<b>Volatile Organic Compounds, TCLP</b>		<b>Method: SW1311 / SW8260B / SW5030A</b>				
1,1-Dichloroethene	< 0.35	0.35	mg/L	12/19/12 01:11	78912	JL
1,2-Dichloroethane	< 0.25	0.25	mg/L	12/19/12 01:11	78912	JL
1,4-Dichlorobenzene	< 3.75	3.75	mg/L	12/19/12 01:11	78912	JL
2-Butanone	< 100.	100.	mg/L	12/19/12 01:11	78912	JL
Benzene	< 0.25	0.25	mg/L	12/19/12 01:11	78912	JL
Carbon tetrachloride	< 0.25	0.25	mg/L	12/19/12 01:11	78912	JL
Chlorobenzene	< 50.	50.	mg/L	12/19/12 01:11	78912	JL
Chloroform	< 3.	3.	mg/L	12/19/12 01:11	78912	JL
Tetrachloroethene	< 0.35	0.35	mg/L	12/19/12 01:11	78912	JL
Trichloroethene	< 0.25	0.25	mg/L	12/19/12 01:11	78912	JL
Vinyl chloride	< 0.1	0.1	mg/L	12/19/12 01:11	78912	JL

### Qualifiers:

B - Analyte detected in the associated Method Blank

S - Spike Recovery outside accepted recovery limits

E - Estimated

R - RPD outside accepted recovery limits

H - Holding Time Exceeded

J - Analyte detected below quantitation limits

environmental laboratory and testing services  
water | soil | air | product | waste







## Chain of Custody Record

☐ RUSH

day turnaround

☒ ROUTINE

Due Date: - - - - - COC #: 115758

1. None	4. NaOH	7. Zn Ace
2. H <sub>2</sub> SO <sub>4</sub>	5. HCl	8. Other
3. HNO <sub>3</sub>	6. MeOH	

**EMT  
USE  
ONLY**

EMT  
WORKORDER  
#121203

**EMT SAMPLE RETURN  
POLICY ON BACK**

MARTHA HANSON 12-14-12



# ILLINOIS ENVIRONMENTAL PROTECTION AGENCY

1021 North Grand Avenue East, P.O. Box 19276, Springfield, Illinois 62794-9276 • (217) 782-2829  
James R. Thompson Center, 100 West Randolph, Suite 11-300, Chicago, IL 60601 • (312) 814-6026

PAT QUINN, GOVERNOR

DOUGLAS P. SCOTT, DIRECTOR

217/524-3300

7009 3410 0002 3808 4265

7009 3410 0002 3808 4272

JAN 11 2011

Clean Harbors Services, Inc.  
Attn: James R. Laubsted  
11800 South Stony Island  
Chicago, Illinois 60617

Illinois International Port District  
Attn: Anthony G. Ianello  
95<sup>th</sup> and the Lakefront  
Chicago, Illinois 60617-5193

RE: 0316000051 -- Cook County  
Clean Harbors Svcs Inc  
Log No. B-16R-CA-2, 3 and 4  
RCRA Permit  
Permit CA

Dear Mr. Laubsted and Mr. Ianello:

This is in response to the following documents submitted on your behalf regarding RCRA corrective action activities at the above-referenced facility:

A document entitled, "Groundwater Current Conditions Report", dated September 2, 2008 and submitted by Lisa Meagher, P.G., Carlson Environmental;

A document entitled, "Corrective Measures Program Phase I: Conceptual Design Report", dated November 25, 2009 and submitted by Leppert Associates;

A document entitled "Response to Comments 6 & 7 in Regard to the Preliminary Phase II Corrective Measures Report for Soil," submitted by Mr. Laubsted on March 26, 2010;

A June 10, 2010 submittal from Mr. Leppert which included a document entitled "SWMU #7 Data Report," (SWMU 7 is one of the solid waste management units being addressed under the RCRA corrective action program being carried out at this facility).

A June 11, 2010 letter from Shawn Leppert, Leppert Associates which discussed the issue of soil saturation limit exceedances at certain locations in the soil around SWMU 7;

A June 29, 2010 submittal from Arainne Dean, Leppert Associates which contained: (1) revised Tables 4 and 5 of the June 10, 2010 submittal and (2) logs for the B-series of borings around SWMU 7;

An August 19, 2010 e-mail with attached figure entitled, "Figure 1: French Drain Conceptual Drawing"; sent by Mr. Leppert:

Rockford • 4302 N. Main St., Rockford, IL 61103 • (815) 987-7760

Elgin • 595 S. State, Elgin, IL 60123 • (847) 608-3131

Bureau of Land — Peoria • 7620 N. University St., Peoria, IL 61614 • (309) 693-5462

Collinsville • 2009 Mall Street, Collinsville, IL 62234 • (618) 346-5120

Des Plaines • 9511 W. Harrison St., Des Plaines, IL 60016 • (847) 294-4000

Peoria • 5415 N. University St., Peoria, IL 61614 • (309) 693-5463

Champaign • 2125 S. First St., Champaign, IL 61820 • (217) 278-5800

Marion • 2309 W. Main St., Suite 116, Marion, IL 62959 • (618) 993-7200

A December 3, 2010 submittal from Jean Ernstberger, P.E., Leppert Associates, which included a document entitled "Response to Comments 6 & 7 in Regard to the Preliminary Phase II Corrective Measures Report for Soil."

The RCRA permit for the subject facility (Log No. B-16R and associated modifications) requires Clean Harbors to conduct corrective action, as necessary, at twenty-eight solid waste management units (SWMUs) present at the facility; ten of these SWMUs are located on or near the "North Pier" associated with this facility while eighteen other SWMUs are located on or near the "South Pier" associated with this facility. A substantial amount of investigative and remedial activities have been carried out to date in addressing these SWMUs. In addition, Clean Harbors has essentially completed closure of a former interim status incinerator and its associated process area located in the eastern portion of this facility. A list of the SWMUs of concern at this facility, as well as a site layout map showing the location of these units and the former incinerator area is attached.

Among other things, the subject submittals contained a compilation of historical groundwater information collected to date at the subject facility as well as supplemental data collected at the South Pier. In addition, the submittals request approval for the concept of a French drain as a groundwater corrective measure and also propose a path forward for addressing the soils at the facility. These submittals were reviewed as requests to modify the approved RCRA corrective action program for this facility and are hereby approved subject to the following conditions and modifications:

1. With regards to groundwater, the Illinois EPA can approve the concept of a French drain as a corrective measure to divert surface and groundwater and prevent migration to contaminated on-site soils, with the following conditions and modifications:
  - a. The facility must submit a report, for review and approval by the Illinois EPA, within ninety (90) days of the date of this letter, which includes the development of a Final Design Report and Construction Work Plan, and an Operation and Maintenance Plan. Preliminary design details must also be provided. The information required in Condition 1.b below must also be addressed in the report.
  - b. The Illinois EPA cannot approve implementation of a French drain without a method of verifying groundwater quality prior to its discharge into the diffusion field, as well as, a plan for managing any contaminated groundwater. The current levels of groundwater contamination at the Site, and the potential for contaminants to migrate to the French drain and beyond the diffusion field, warrant groundwater testing and potential treatment.

- i. Groundwater monitoring wells must be proposed downgradient of the diffusion field to verify effectiveness of the remediation system, and to demonstrate that contaminated groundwater is not migrating to Lake Calumet or a neighboring property.
  - ii. The wells along the northern property boundary may be adequate to verify the water quality coming onto the Site. The placement of these wells must be reviewed for adequate spacing. In addition, a well network must be proposed to verify that any contaminated groundwater on-site is not migrating into the French drain.
  - iii. A contingency plan must be proposed to address groundwater in the event the system is not effective. The facility must propose an alternative corrective measure that will be used if the French drain is not successful, and clearly outline how failure will be defined.
  - iv. At a minimum, the existing monitoring wells at the Site must be monitored quarterly for groundwater head elevations to verify that the system is dewatering the Site. Also, outline how the facility will interpret the relationship between seasonal rainfall and the water levels at the Site.
  - v. The facility should discuss the potential complications of high precipitation events, high lake levels, and potential flooding of the French drain system, and discuss how these conditions will be addressed.
2. The Well Water Survey (WWS) is adequate to verify that no private or community water supply wells are being impacted by the facility, and therefore meets the requirements found in 35 Ill. Adm. Code Part 1600.
3. The information provided is adequate to satisfy Conditions 2.a through 2.c of the Illinois EPA letter dated January 12, 2007 (Log No. B-16-CA-5), by providing background information for the groundwater monitoring, geology, hydrogeology, and installing additional monitoring wells at the Site.
4. Condition 4 of Illinois EPA's December 2, 2009 letter indicated the following restrictions must be established regarding future activities at the facility:
  - a. The existing surface cover present over the facility must remain in place as an engineered barrier (the surface cover includes soil, vegetation, asphalt, concrete and building). Action must be taken, as appropriate, to maintain this cover. If the surface cover over a portion of the facility is modified, the new surface cover

must meet the requirements of an engineered barrier as set forth in 35 Ill. Admin. Code 742;

- b. A fence must be installed and maintained around the facility.
- c. The facility must be used solely and exclusively as "industrial/commercial property" as defined in 35 Ill. Admin. Code 742;
- d. The soil within the facility must remain in place, except when necessary to remove it for construction purposes.
- e. Any excavation and/or subsurface construction work where workers will be exposed to the soils at the facility must be conducted in accordance with a site health and safety plan meeting the requirements of 29 CFR 1910 and 1926. This plan must be designed to monitor for and restrict direct worker exposure to impacted soil which may be present at the facility. All construction workers must be equipped with appropriate personal protective equipment as required and specific in the plan.
- f. Soil removed during a construction project at the facility must be managed in accordance with the applicable regulations of the Illinois Environmental Protection Act and 35 Ill. Admin. Code, Subtitle G: Waste Disposal.
- g. An ELUC must be established to ensure the restrictions set forth above are complied with in the future. This ELUC must also indicate that:
  - (1) Wastewater treatment sludges remain in the following SWMUs at the facility:
    - a. SWMU 5 on the Northern Pier (Wastewater Basin #1)
    - b. SWMU 9 on the Southern Pier (Landfill).
  - (2) Wastewater treatment sludges may remain in the following SWMUs at the facility:
    - a. SWMU 8 on the Southern Pier (Auxiliary Basin 3)
    - b. SWMU 10 on the Southern Pier (Former Temporary Pickle Liquor Basins)
    - c. SWMU 11 on the Southern Pier (Former Permanent Pickle Liquor disposal Sites)

- d. SWMU 12 on the Southern Pier (Former Permanent Pickle Liquor Basins)
5. Material remains at SWMU 7 of the southern pier which exceeds the soil saturation limit and soil attenuation capacity. Thus, in a manner to the SWMUs identified in Condition 4.g above, this SWMU must essentially be closed as a landfill and a groundwater monitoring program must be established at this unit; this groundwater monitoring program must be included in the interim groundwater monitoring program required by Condition 6 below.
  - a. The boundaries of the area which make up this SWMU is a polygon created by drawing line segments, in order, between the following boring locations: B-173 to B-186 to B-57 to B-193 to B-192 to B-215 to B-213 to B-175 to B-176 and then back to B-173.
  - b. The improved cover proposed in the subject submittals to be constructed over SWMU 7 is hereby approved.
6. In accordance with Condition 5 of the Illinois EPA's December 2, 2009 letter, the facility must propose an interim groundwater program for SWMU 5 in the North Pier and SWMUs , 8, 9, 10, 11 and 12 in the South Pier, that is adequate to satisfy the requirements of 35 Ill. Adm. Code Part 724. The proposal must be submitted within ninety (90) days of the date of this letter.
7. The surficial soil currently present over the Biochemical Filterbeds (SWMU 1 on the North Pier) contains chromium at unacceptable levels for an engineered barrier. The improved engineered barrier over this unit proposed in the subject submittals must be constructed over this unit.
8. Final plans and specifications for improving the cover over SWMU 1 on the North Pier and SWMU 7 on the South Pier must be submitted to Illinois EPA for review and approval. This submittal must accompany the submittals required by Conditions 5 and 6 above.
9. A proposed institutional control for an engineered barrier must eventually be developed in accordance with 35 Ill. Adm. Code 742, Subpart J and submitted to Illinois EPA for review and approval. This control must also clearly include the following information and restrictions:

- a. A statement that contaminated soil is present at the site, but does not pose a threat to human health or the environment, provided an engineered barrier is present over the entire site and the restrictions set forth in the institutional control are met;
- b. A scaled drawing showing the current surface cover which comprises the required engineered barrier over the entire site, relative to the property boundaries at the site;
- c. A description of the construction details of the required engineered barrier over the entire site;
- d. A requirement that the engineered barrier in place over the entire site be properly maintained in a future;
- e. A requirement that if the surface cover over a portion of the facility is modified, then that modification must meet the requirements of an engineered barrier as set forth in 35 Ill. Admin. Code 742;
- f. A requirement that a site safety plan meeting the requirements of 29 CFR be developed and implemented any time construction/excavation work takes place in the contaminated soil present beneath the engineered barrier. Among other things, this plan must properly restrict worker exposure and any other person's exposure to the contaminated soil;
- g. A requirement that any soil removed from beneath the engineered barrier be managed in accordance with 35 Ill. Admin. Code, Subtitle G: Waste Disposal.
- h. The ELUC must also indicate that:
  - (1) Wastewater treatment sludges remain in the following SWMUs at the facility:
    - a. SWMU 5 on the Northern Pier (Wastewater Basin #1)
    - b. SWMU 9 on the Southern Pier (Landfill).
  - (2) Wastewater treatment sludges may remain in the following SWMUs at the facility:
    - a. SWMU 8 on the Southern Pier (Auxiliary Basin 3)

- b. SWMU 10 on the Southern Pier (Former Temporary Pickle Liquor Basins)
  - c. SWMU 11 on the Southern Pier (Former Permanent Pickle Liquor Disposal Sites)
  - d. SWMU 12 on the Southern Pier (Former Permanent Pickle Liquor Basins)
- 10. As indicated above, a former interim-status incinerator and associated process area is undergoing closure at this facility. All the units have been decontaminated and removed from the area and a soil sampling/analysis effort has been completed. Based upon the results of this sampling/analysis effort, Illinois EPA required that an engineered barrier and associated institutional control meeting the requirements of 35 Ill. Admin. Code 742 be established over this area. On November 18, 2009, Illinois EPA approved a report documenting construction of the required engineered barrier. This barrier covers at least one of the SWMUs present at the facility and must eventually be incorporated into an ELUC for the subject facility similar to that required by Condition 9 above.
- 11. 35 Ill. Adm. Code 742.1010(d)(8) requires that an ELUC contain scaled maps which show information about the facility, any remaining contamination at the facility and any physical features at the facility to which the ELUC applies.
  - a. The required scaled site maps must specifically show:
    - (1) The legal boundary of the entire property to which the ELUC applies;
    - (2) The horizontal and vertical extent of soil containing contaminants of concern above applicable remediation objectives for soil within the facility to which the ELUC applies;
    - (3) The type of cover present over the soils of the facility;
    - (4) The nature of the contaminants of concern present in the soil at the facility.
  - b. Exhibit B of an ELUC is comprised of the maps necessary to meet the requirements of 35 Ill. Adm. Code 742.1010(d)(8). In developing such an exhibit for an ELUC associated with an engineered barrier or industrial/commercial land use restrictions:



- (1) If only one drawing is used to present all the required information, then it must be clearly labeled as Exhibit B to the ELUC in question. Many times however, it will be necessary to include more than one drawing in Exhibit B to meet the requirements of the requirements of 35 Ill. Adm. Code 742.1010(d)(8). In such cases, each map shall be given a unique Exhibit number (i.e., Exhibit B-1, B-2, B-3, etc.) and labeled as such.
  - (2) A cover sheet must be provided for the exhibit which: (a) lists the types of scaled maps that must be provided in the ELUC as required in 35 Ill. Adm. Code 1010(d)(8); (b) identifies the map within the exhibit which addresses the individual requirements of 35 Ill. Adm. Code 742.1010(d)(8)(A), (B), (C) and (D); and (c) lists the maps which comprise the exhibit by name and number.
  - (3) The Real Estate Tax Index/Parcel Index Number (PIN) of the property in question must be contained on each map in Exhibit B.
12. Corrective action at the subject facility must be carried out in accordance with: (1) the facility's RCRA permit; (2) 35 Ill. Admin. Codes 620, 724 and 742; and (3) Illinois EPA letters regarding such activities.
  13. Illinois EPA's internet site ([www.epa.state.il.us](http://www.epa.state.il.us)) contains guidance regarding the implementation of RCRA remediation projects and should be consulted as Clean Harbors moves forward on this project.
  14. A completed RCRA Corrective Action Certification form must accompany all submittals made to Illinois EPA regarding corrective action efforts at this facility. To allow for proper review and distribution of this information, it is requested that two copies of all submittals be provided, as well as the original.

This action shall constitute Illinois EPA's final decision on the subject submittal. Within 35 days after the date of mailing of the Illinois EPA's final decision, the applicant may petition for a hearing before the Illinois Pollution Control Board to contest the decision of the Illinois EPA, however, the 35-day period for petitioning for a hearing may be extended for a period of time not to exceed 90 days by written notice provided to the Board from the applicant and the Illinois EPA's Division of Legal Counsel within the 35-day initial appeal period.

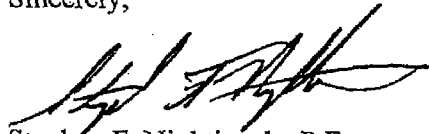
Work required by this letter, your submittal or the regulations may also be subject to other laws governing professional services, such as the Illinois Professional Land Surveyor Act of 1989, the Professional Engineering Practice Act of 1989, the Professional Geologist Licensing Act, and the

Mr. Laubsted and Mr. Ianello  
B-16R-CA-2, 3 and 4  
Page 9

Structural Engineering Licensing Act of 1989. This letter does not relieve anyone from compliance with these laws and the regulations adopted pursuant to these laws. All work that falls within the scope and definitions of these laws must be performed in compliance with them. The Illinois EPA may refer any discovered violation of these laws to the appropriate regulating authority.

Should you have any questions regarding the groundwater aspects of this project, please contact Amy Boley at 217/558-4716. Questions regarding other aspects of this project should be directed to James K. Moore, P.E. at 217/524-3295.

Sincerely,



Stephen F. Nightingale, P.E.  
Manager, Permit Section  
Bureau of Land

SFN:JKM/mls/100181s.doc

*See AMB IBM*  
Attachment: Site Layout Map

cc: Shawn Leppert, Leppert Associates  
Lisa Meagher, Carlson Environmental  
Martin Smith, Clean Harbors

bcc: Bureau File  
Des Plaines Region  
Jim Moore  
Terri Blake Myers  
Amy Boley